‘We

THE SCIENTISTS

Women in INYAS

EDITORIAL TEAM

NISHIMA WANGOO
NISHAD FATHIMA
NEHA SARDANA
KIRAN BALA
KALPANA NAGPAL

ACKNOWLEDGEMENT

Rajendra Dhaka
(Chair - INYAS)

Chandra Shekhar Sharma
(Former Chair - INYAS)

Meghna Singh

CONTACT US:

Indian National Young Academy of Science (INYAS)
Indian National Science Academy (INSA),
2, Bahadur Shah Zafar Marg, New Delhi - 110002, India

EMAIL: inyas@insa.nic.in ; inyasindia@gmail.com

WEBSITE: https://www.inyas.in/

INYAS YouTube INYAS INYAS_INSA

Contents

Foreword

It is a great pleasure for me to write a foreword to this compendium that is being brought out by the INYAS with an aim to highlight the achievements of its present and past women members. INYAS has now been in existence for about seven years. Among the 102 current members and 43 alumni, the INYAS boasts of about 41 women with a healthy percentage of 28%. This compendium contains stories of 34 out of them, who were ready to share their experiences and thoughts. Each entry gives factual information about the person.

The contributors also talk about their motivation to do science, the hurdles they faced and have overcome. Most importantly to me, many of them emphasize the joy one has in doing science. The information will be highly inspiring for young women and girls who aspire to have a career in STEM. In fact I guess they would be able to relate much better to these stories than (say) with those by the contributors of Lilavati's Daughters, as the narrators in this case have grown up in a world/surroundings similar to the one in which they themselves are growing up. I imagine both types of stories have their own role to play! In fact, in this respect, this compendium is similar to '31 Fantastic Adventures in Science' by Nandita Jayaraj and Ashima Freidog. I may mention in passing, a young daughter of an (ex)Ph.D. student quizzed me why her mother was not featured in the book compiled by Nandita and Ashima! So now they really are starting younger! I am happy that the INYAS membership has put their mind and efforts into this very useful and nice project. I am sure it will serve its purpose.

Over the past few decades, it has become ever clearer that having more women participate in science in all its aspects: education, research and applications of science to development as well as society is important. It is highly desirable as it gives full expression to women's creativity. However, it is equally important from the point of view of making optimal use of humanity's intellectual potential and increasing the dimensionality of the S&T ecosystem! Once we all appreciate this fact, the response of the scientists and society to various measures to make women's participation more numerous and effective, will see a marked difference. Since in India the major drop in the fraction of women participating in science comes after they acquire a Ph.D., it makes good economic sense to try and plug this loss of trained scientific woman power! I hope we all move towards a day when women engineers and scientists are known as engineers and scientists who happen to be women!. But to wake up in that heaven of gender neutrality one day, it is necessary at present for the society to be aware of the gender difference in a big way. Compendium of this kind serves the purpose of raising this awareness. I wish a lot of success to this effort by the young brigade!

However, I am a little bit unhappy that the women membership of INYAS does not seem to be distributed equitably across different disciplines. The gender balance in the membership in the subject of Physical sciences, Earth and Atmospheric Sciences as well as Mathematical Sciences is really skewed. Maybe it represents the skewness present in the applications, because at least for two subjects where I am personally familiar with the landscape, it certainly does not reflect the fraction of active young women scientists. In any case, it would be good to analyse the situation and aim for equitable representation in the membership of science practitioners in the various disciplines at this starting stage itself. I say this because, as we know from the example of Academy Fellowships, time and effort required to 'right' the ship increases steeply as time goes along! My young friends, I wish you all the best in your efforts.

Prof. Rohini M Godbole
Centre for High Energy Physics
Indian Institute of Science-Bangalore

Foreword

The pandemic that we are living through has reminded us all once again how much we depend on each other not just that we are social animals who need each other's company, but that we rely on cooperation for survival, that we thrive on interaction, and that we take diverse cues from each other in fashioning our own lives. The lives of others can often serve to inspire. By setting examples and by setting benchmarks for achievement. In any area of endeavour, success requires natural talent to be sure, but it also requires a combination of training, motivation, tenacity, resilience, and very often, just plain good luck.

This collection of profiles of some forty or so women scientists who are members of the INYAS aims to provide just this inspiration. These are women of achievement the membership of INYAS is a significant career milestone -- so all of them are people we look up to. In their profiles, they share with us not just the details of what they do, but also why they do it, and what has helped them along the way, in choosing a career in STEM, in staying with it, and in coming through, making a success of it in a very unequal world. Why do you do what you do? How do you keep going on, or at any rate, how come you don't give up? What helped you? What did not? These are all the questions one would ask any mentor, and in these profiles, there are some answers that any young and aspiring scientist, man or woman, can find. The contributors to this volume are mid-career scientists for the most part. Past their first few hurdles maybe, but with still more goals to achieve. One therefore has to admire their courage and their generosity in sharing with us their perspectives on what can be done to bridge the gender gap in STEM, and their advice to young women who want to do science. It is necessary to sustain the effort to increase the participation of women in STEM. Stamina is essential, especially when one realises that in the two decades of this century since when the issue of gender disparities in science began to be talked about more openly, in sheer numerical terms there has been little increase in the participation of women in academic science in the country, especially at the higher levels. Numbers don't lie. The number of women pursuing a career in science in India is low for a complex set of reasons, many of which have a cultural basis. Societal pressures contribute a lot to dissuading many young women from studying scientific subjects (more generally STEMM) both directly and indirectly. Given the huge social, linguistic, religious, and cultural diversity in our country, this is not true across the board. But there is also clear indication that efforts to keep these issues in the public eye and at the forefront are flagging, which makes the present effort all the more important.

A young woman who dips into this book should be able to find inspiration in another woman from a similar circumstance or with the same socioeconomic background who has gone on to carve out a career for herself in today's India. And hopefully, she should be able to follow in these footsteps to go beyond. Enabling a career in science was always a challenge in our

country: the resources that are needed are sorely inadequate, and as a society therefore, we need to enable and motivate everyone who is capable. There have been other efforts to put together collections of biographies and autobiographies of working women scientists, but this volume is characterised by its youth. Not just in the ages of the contributors, but also in their perspectives, the solutions that they have been able to fashion for themselves as they make their careers and their lives, and also by the frankness and openness with which they are able to discuss their situations. The INYAS is to be appreciated for their role in producing this volume, and I hope that it will be disseminated as widely as it deserves to be.

Prof. Ram Ramaswamy
Visiting Professor
Department of Chemistry
Indian Institute of Technology-Delhi

Message

Across the world, women who are scientists are doing ground-breaking research, however, the number of women personnel involved in scientific research is low. In the last few decades, an increased involvement of women in science and technology has been observed but the gender disparity continues. Inclusion and collaboration are important aspects of modern-day science as the positive role of diversity in scientific thoughts is well appreciated. Women face unique challenges, and it is only women who can understand the benefits of looking up to role models and entering into discussions on the very different situation that one could be in. As the world races towards the future with the threat of possible pandemics with emerging pathogens, a catastrophic climate change and resource crunch, women aspiring to build a career in science must get motivated. Given the diversity in a huge country like ours, it is much needed to reiterate the exceptional challenges women face and envisage specific requirements essential for women to thrive. There is still a lot to be done to bring about gender parity.

This effort of INYAS to bring out a compendium of sketches from their member scientists who are women is laudable. This publication provides details of how member scientists chose STEM as a career, who were their role models, major challenges they faced and advice for the young generation. Given the importance of young women to feel encouraged to join the scientific endeavour, this timely publication of INYAS will be very convenient to understand the scientific journey of women who are now established. A very useful addition is the contact coordinates of the scientists whom one will be able to contact if there are questions.

I congratulate the entire INYAS membership to have initiated such an effort along with their many creative programmes. I wish a long journey for INYAS to continue helping the young scientists of the country. The vision will become a reality and INYAS should stay focussed with their efforts to encourage the young generation to get involved in science.

Prof. Chandrima Shaha
President
Indian National Science Academy

Message

The Indian National Young Academy of Sciences (INYAS), since its inception in December 2014, has focused on inclusiveness in terms of gender, demography and organizations. The journey of INYAS that started from its founding Chair as Woman has reached a level where we have almost 55% women representation in its apex decision-making body, National Core Committee and nearly 30% overall representation in membership.

In the last two years especially, we have taken several initiatives in INYAS to highlight, encourage and celebrate Women in Science. It included organising a webinar series- Women in Science (WiSE), providing scholarships to young women Ph.D. scholars for a Data Science-based workshop, celebrating International Women's Day, affirmative approaches to promote women leadership at all levels within INYAS, among several others. Further, in 2022, while designing the six new annual flagship events for INYAS, an event is dedicated for Women in Scientific Domain (WiSDom) aimed at school girls to undergraduate & postgraduate students to early-career women researchers. On this International women's day, we are also organising a workshop addressing gender biases in academia, especially in the Indian context.

Continuing our efforts in this direction, INYAS also decided to prepare and release a compendium highlighting the journey of our own women members and alumni (we name them WiNYAS) who have made great strides during their academic and research career besides contributing directly to society through various outreach programs. The objective of this compendium is to establish a direct connection with the dreams of young aspiring girls and encourage them further to pursue their careers in Science by drawing inspiration from these WiNYAS role models.

I am extremely happy to mention that the idea conceptualised is now being realized, and this compendium will be available soon in the public domain. I also profoundly acknowledge the support received from Prof. Rohini Godbole, Prof. Ram Ramasamy and Prof. Chandrima Shaha in bringing this compendium. I am sure this compendium will ignite the imagination of young girls and spark their interest in Science and make them believe in themselves.

Dr. Chandra Shekhar Sharma
Associate Professor
Indian Institute of Technology-Hyderabad
Former Chair-Indian National Young Academy of Sciences

Message

I am pleased that Indian National Young Academy of Sciences (INYAS) is bringing out the first compendium on scientific achievements of all women INYAS members (WINYAS) since the establishment of INYAS in December 2014. Even going through different challenges, WINYAS members achieved scientific excellence in their respective areas, actively contributing to various outreach events to promote science and help young researchers, etc.

This compendium also covers their experience/journey in science, opinion to bridge the gender gap in STEM, and advice to motivate and inspire younger generation, particularly girl students for their career in STEM. At INYAS, there are total 102 current members and 43 in alumni group covering various areas of science and from all over the country. In fact, we believe in inclusiveness having approx. 33% women members and we are growing with time. I am happy to note that we have more than 50% women participation at leadership level in our core-committee during 2021 and 2022.

Our membership is only for 5 years and this way we always keep our academy young and bring new ideas for betterment. We all work together to grow gender equality in science and INYAS creates new way forward for young researchers. I am very confident that this compendium will give an opportunity to all of us to better understand the potential of young women researchers and their contribution to STEM as well as to the society. With this I thank all the members who contributed and spent significant extra time to make this compendium in final form, to be released on the eve of international women's day 2022.

I congratulate all WINYAS members and as a Chair I assure to continue working towards inclusiveness at INYAS platform in future.

With best regards,

Dr. Rajendra S. Dhaka
Associate Professor
Indian Institute of Technology-Delhi
Chair-Indian National Young Academy of Science (INYAS)

BIOLOGICAL SCIENCES

<table>
<tr><td>  </td><td>Anindita Bhadra
Associate Professor and Associate Dean of International Relations and Outreach
Department of Biological Sciences, IISER Kolkata</td></tr>
<tr><td>Broad Research Area:
Biological Sciences</td><td>Brief introduction about yourself
She is a behavioural biologist, studying free-ranging dogs in India. She was involved in the founding of INYAS and served as the Founding Chair. She had also been Co-chair of the GYA. She is passionate about teaching, science education and policy, and an art enthusiast, involved in professional theatre.</td></tr>
<tr><td>Research Expertise / Keywords:
Dogs, Behaviour, Ecology, Evolution, Cognition</td><td>Research explanation in simple language
Her research group studies behavioural ecology of stray dogs. She tries to understand how dogs live in the urban jungle, how they navigate their lives around humans and how we influence their lives. Her group is interested in understanding the evolution of the dog-human relationship.</td></tr>
<tr><td>Contact Information:
Official Email: abhadra@iiserkol.ac.in
Official Website: IISER Kolkata - abhadra
Scopus ID: 15922398800
Google Scholar:Anindita Bhadra
Twitter: @Abhadra7,
FB: Anindita Bhadra | Facebook</td><td>Significant achievements
INSA Young Scientist Award in Animal Sciences, 2009
SERB Women Excellence Award, 2013,
IAP Young Scientist Award, 2015,
Janaki Ammal National Women Bioscientist Award (Young), 2021,
Research articles: 39, Commentaries, book reviews, popular science articles etc: 27, Book chapters: 2, Invited talks, workshops, panels, etc.: 119, Review editor, Frontiers in Ecology and Evolution, Editorial Board member, Frontiers Policy Labs, Founding Chairperson, INYAS (2015-18), Executive Board Member, GYA (2019-20), Co-Chair, GYA (2020-21)
Member, Inter-Academy panel on Women in STEM, India (2021-)</td></tr>
<tr><td colspan="2">One line/phrase that inspires you the most in your life:
Que sera sera!</td></tr>
</table>

1. **Why did you choose STEM as a career?**
   I fell in love with science in class III when my science teacher made us germinate gram seeds and note the progress of the little experiment we performed. Since then, I knew I wanted to study science.

2. **People who have inspired you the most in your life and why?**
   Many of my school teachers, through their teachings, encourage us to do hands-on experiments, ask lots of questions and participate in science fairs.
   Prof. Silanjan Bhattacharyya, my UG teacher, showed us the importance of the textbook over class notes and took us on a field trip that changed my life.
   My Ph.D. supervisor and life-long mentor, Prof. Raghavendra Gadagkar taught me the importance of asking questions. He is my role model not only in my research but also in teaching, outreach, science-policy engagement.
   Many of my students, who have asked me questions that I did not have an immediate answer to, and engaged me in lengthy discussions, have helped me learn better.
   My mother, being a superwoman, inspired me the most.

3. **Major turning points/events in your life and/or the main challenges that you have faced and how you overcame the same?**
   A college excursion to the Western Ghats, including a visit to CES, IISc. Here, Prof. Gadagkar's talk triggered my dream of returning to IISc for a Ph.D. under his supervision.
   Having my son during my Ph.D. was a major milestone in life, which brought a sea change in lifestyle, huge responsibilities, happiness and taught me the balancing act between motherhood and work.
   Joining IISER Kolkata, teaching and setting up the Dog Lab, starting a field of research on my own was a great experience.
   Major setback was facing discrimination and harassment, leading to major stress in life.

4. **In your opinion, what can be done to bridge the gender gap in STEM?**
   - We need strong policy and rigorous implementation of the policy.
   - We need to applaud organizations that achieve gender equity and show gender neutrality.
   - We need to make our girls bolder and stronger and provide them strong role models.

5. **Your advice to young girls and /or women aspiring to make a career in STEM**.
   It's a great choice if you really enjoy science. Do what you love, choose a career path for yourself, not according to your family. As my mentor told me, only Ph.D. students get paid for doing something they enjoy doing. There would be challenges as no path is free of hurdles; hurdles make the race fun. Trust yourself, be your judge and have a dream; you will surely fly!

<table>
<tr><td>  </td><td>Charu Lata
Senior Scientist & Head of Division
Traditional Knowledge Studies Division,
CSIR-National Institute of Science Communication and Policy Research, New Delhi-110012</td></tr>
<tr><td>Broad Research Area
Biological Sciences</td><td>Brief introduction about yourself
She is a Senior Scientist and Head Traditional Knowledge Studies Division at CSIR-NIScPR. She is Editor of the Indian Journal of Traditional Knowledge and Indian Science Abstracts and coordinator for the national initiative SVASTIK on “Communicating India’s Scientifically Validated Traditional Knowledge to Society”.</td></tr>
<tr><td>Research Expertise / Keywords:
Traditional Knowledge, Science Communication, Medicinal Plants, Abiotic stress, Plant molecular biology and genomics</td><td>Research explanation in simple language
She is working in the field of policy research in traditional knowledge, especially sustainable agriculture and traditional medicinal plants. Her research interests have also been in the field of crop improvements, especially abiotic stress responses and tolerance in crop plants, and in understanding beneficial plant-microbe interactions.</td></tr>
<tr><td>Contact Information:
Official Email:
charulata@niscar.res.in
Official Website:
Google Scholar:
Twitter: @charu_lata1
FB</td><td>Significant achievements
Total Peer Reviewed Publications: 38; General articles: 02, Book chapters: 13; Reports: 02,
Awards/Honors/Grants:
Associate (2019-2022) of the Indian Academy of Sciences; SERB Early Career Research Award 2018; Indo-Australia EMCR Fellowship 2016-17; Founding Member INYAS; CSIR Grant of Special Honorarium; INSA Medal for Young Scientists 2014; SERB Women Excellence Award; Jawaharlal Nehru Award for Outstanding Doctoral Thesis Research-2012; NASI Young Scientist Platinum Jubilee Award (2012); INSPIRE Faculty Award (2011).</td></tr>
<tr><td colspan="2">One line/phrase that inspires you the most in your life:
The woods are lovely, dark and deep, But I have promises to keep, And miles to go before I sleep.</td></tr>
</table>

1. **Why did you choose STEM as a career?**
   Studying Agriculture at Assam Agricultural University helped me connect with nature and the people who toil hard in fields. I could understand and relate to the problems faced by farmers. It motivated me to pursue a career in agricultural biotechnology, which would help me contribute towards crop improvement.

2. **People who have inspired you the most in your life and why?**
   Dr. Basanti Baroova, Professor and Head at AAU, Jorhat, is my inspiration. For the first time, I had moved out of my house to study at AAU. She comforted me as a mother figure and constantly encouraged me to excel. I was impressed by her dedication and commitment to teaching and research.

3. **Major turning points/events in your life and / or the main challenges that you have faced and how you overcame the same?**
   My first regular position was at Lucknow while my family lived in Noida. I visited them fortnightly. It was initially tough but with my family's support, I overcame and excelled. Later I moved to New Delhi where I had to orient towards science communication. My wonderful colleagues encouraged me to strive and overcome the challenges.

4. **In your opinion, what can be done to bridge the gender gap in STEM?**
   Girls are as equal as human beings as boys. There should be no discrimination in education or jobs or for availing opportunities to grow and succeed based on gender. It's the responsibility not only of the Government but society as a whole that the right platform is being provided to our young minds.

5. **Your advice to young girls and /or women aspiring to make a career in STEM**.
   If you want you and your work to be recognized, create your niche and not depend upon others. Try to be independent in your research career as early as you can.

<table>
<tr><td>  </td><td>Gitanjali Yadav
Group Leader, NIPGR, New Delhi
Prof. (Adjunct), Dept of Data Science, IISER Bhopal</td></tr>
<tr><td>Broad Research Area:
Biological Sciences</td><td>Brief introduction about yourself
Dr. Yadav is a globally renowned data scientist with several conceptual and methodological contributions to plant biology. She promotes science as a way of life to students in schools and colleges and has been a mentor for Women in Science (WiS) as well as an ambassador of Indian young scientists.</td></tr>
<tr><td>Research Expertise / Keywords:</td><td>Research explanation in simple language
Gitanjali’s group is interested in the phenomenal ability of plants to travel, adapt and expand into new realms, and they investigate this by using knowledge-based approaches like Genomics, Complex Networks and Geo-spatial Modelling. She is an expert in data science at the interface of Botany, Chemistry and Geography, with specific applications in food security and ecosystem conservation.</td></tr>
<tr><td>Contact Information:
Official Email:
gy@nipgr.ac.in
Official Website
Twitter ID ‘gilienv’</td><td>Significant achievements
With >60 publications, Dr. Yadav’s work has been recognised by some of the most prestigious national/ international Awards:
SASTRA-Obaid Siddiqi Life Science Award (2021)
Hamied Fellowship (2019), University of Cambridge
Early Career Award, Royal Society of London (2017)
DBT-Cambridge Lectureship (2016)
SERB Women Excellence Award (2013)
INSA Medal (2011)
NASI Young Scientist Platinum Jubilee (2009)
IYBA Award (2005)</td></tr>
<tr><td colspan="2">One line/phrase that inspires you the most in your life:
“ATTENTION IS THE RAREST AND PUREST FORM OF GENEROSITY “</td></tr>
</table>

1. **Why did you choose STEM as a career?**
   The new millennium STEM world is drowning in data yet starving for knowledge. I loved Math as a child and earned degrees in Botany, Biomedicine and Bioinformatics. A STEM career enabled me to translate Data into Knowledge. My diverse subject background also helps in interdisciplinary research, and I escape being binned into boxes of expertise! I find it more liberating to remain Out-of-the-Box.

2. **People who have inspired you the most in your life and why?**
   Every individual would be an inspiration if only we knew his or her story! I continue to be inspired by people I meet in day-to-day life, often by family, friends, students and colleagues.

3. **Major turning points/events in your life and / or the main challenges that you have faced and how you overcame the same?**
   Each moment is a turning point, and the list of ordinary people who guide us can be endless. My late Grandfather said it's alright for girls to pursue a career without bothering about marriage. A DU Prof agreed to talk to me – a young student and total stranger- wanted to know how research works! A friend assured me that short-term happiness is not worth lifelong compromise. My Ph.D. guide had (and still has!) more faith in me than myself. A senior collaborator insisted that I become the corresponding author of our joint work – that was my first paper as a young investigator. Many more stories, but not enough space. My mum, who leads by example, for convincing me that Work-Life Balance is not a myth.

4. **In your opinion, what can be done to bridge the gender gap in STEM?**
   Women face very similar challenges across borders of nations, cultures and disciplines. The same can be said for our strengths, but we won't know that unless we meet, share experiences, increase connections and build strong platforms for continuing support. Breaking the silos we build around ourselves is the only way to bridge Gaps and bring balance to the system.

5. **Your advice to young girls and /or women aspiring to make a career in STEM**.
   Young women often have a strong sense of self-criticism. Please do not let this transform into self-doubt. Take risks. Stop Apologising. Retain a sense of Humor above all else.

<table>
<tr><td>  </td><td>Riffat John
Sr. Assistant Professor
Department of Botany, University of Kashmir
Srinagar – 190 006, Kashmir</td></tr>
<tr><td>Broad Research Area:
Biological Sciences</td><td>Brief introduction about yourself
Nature lover and plant biologist, mother of two children and wife of a wonderful man!</td></tr>
<tr><td>Research Expertise / Keywords:
Plant Molecular biology, Plant proteomics, Plant stress biology</td><td>Research explanation in simple language
How do plants respond to the environment? Explore the ways to grow climate smart crops to feed the hungry.</td></tr>
<tr><td>Contact Information:

Official Email:
riffatminhaj@kashmiruniversity.ac.in

Official Website:

Google Scholar:</td><td>Significant achievements
No. of Publications: 44
Indo-U.S. Genome Engineering and Editing Technology (GETin) Overseas Fellowship by IUSSTF – 2017
INSA (Indian National Science Academy) International Bilateral Scientist Exchange Program to Europe – 2016
Young Scientist Award by State of Jammu and Kashmir Science and Technology Council – 2015</td></tr>
<tr><td colspan="2">One line/phrase that inspires you the most in your life:

Future depends on what you do today.</td></tr>
</table>

1. **Why did you choose STEM as a career?**
   Science is the way we think and analyse the world around us. I have always been inspired by nature and was keen to understand it!

2. **People who have inspired you the most in your life and why?**
   My parents and teachers have always been a motivating force for me. People who struggle to overcome their difficulties and hurdles to chase their dreams inspire me.

3. **Major turning points/events in your life and / or the main challenges that you have faced and how you overcame the same?**
   The major turning point in my life came when I left my postdoc to join my husband abroad. After a gap of four years, I joined as an assistant professor at the University of Kashmir. My biggest challenge was to start a research lab, get grants, teach postgraduate students and understand the responsibilities as a faculty member apart from looking after my two-year-old son and a six-month daughter at home.

4. **In your opinion, what can be done to bridge the gender gap in STEM?**
   I think various efforts such as grants and awards specifically for women are important initiatives to overcome the gender gap in STEM.

5. **Your advice to young girls and /or women aspiring to make a career in STEM**.
   A career in STEM offers various opportunities, and it is worth your capability. Even if things don't work out, that's not the end of the world, move on!

<table>
<tr><td>  </td><td>Nazia Abbas
Scientist
Plant Biotechnology
CSIR-Indian Institute of Integrative Medicine,
Sanat Nagar Srinagar Kashmir—190005</td></tr>
<tr><td>Broad Research Area:
Biological Sciences</td><td>Brief introduction about yourself
She did a Master’s degree from Jamia Hamdard University and afterward earned her Doctorate from Jawaharlal Nehru University from one of the the prestigious Institutes, National Institute of Plant Genome Research, New Delhi.</td></tr>
<tr><td>Research Expertise / Key words:
Molecular Biology,
Transcription Factors
Artemisia Annua
Dioscorea deltoidea
Metabolic pathways
Artemisinin
Diosgenin</td><td>Research explanation in simple language
She has been working as a Plant Molecular Biologist for the past 14 years. Some of her key research lines include molecular and functional analysis of ZBF3/CAM7 in Arabidopsis thaliana, investigating the regulatory role of MYC-type bHLH transcription factors from Artemisia annua. Her group is also working on the cloning and characterisation of key enzymes involved in the biosynthesis of some of the novel steroidal saponins and their biological efficacy from Dioscorea deltoidea endemic to Kashmir Himalayas.</td></tr>
<tr><td>Contact Information:

Official Email:
nazia.abbas@iiim.res.in

Official Website:
www.iiim.res.in</td><td>Significant achievements
SERB Women Excellence Award (2019),
INSA Medal for Young Scientist (2016),
INSPIRE Faculty award 2014 by DST,
Qualified CSIR-RA (2013-2016),
Qualified ICAR-NET, Govt. of India (2012-2013),
Qualified DBT-JRF/SRF (DBT-BET) (2007-2012,.
Qualified GATE for Engineering (2006),
INSPIRE Faculty Grant (2015)- 35 Lac
Women Excellence Award Grant(2019)- 18 Lac
CSIR-First Grant (2021)-50 Lac</td></tr>
<tr><td colspan="2">One line/phrase that inspires you the most in your life:
Explore your limitations and keep moving on.</td></tr>
</table>

1. **Why did you choose STEM as a career?**
   I have been interested in Science, since my childhood and was keen on becoming a medico. In the common entrance test of Kashmir valley, I was able to get BUMS, but I wasn't satisfied with my achievement and didn't join the college. Then I moved ahead with my studies and was very much delighted with the subject of biotechnology, where I decided to study plant Biotechnology in detail.

2. **People who have inspired you the most in your life and why?**
   My first Inspiration was my father, who by his hard work and extra efforts, has boosted my moral support and has driven me in the world of competition to achieve something by the virtue of knowledge.
   Afterward, My Ph.D. mentor was the one who inspired me by relying on my abilities and by giving me space to work on my own. His research abilities and way of solving the tough queries of research were commendable. By his teaching, he was making one think about the how and why of a problem. Besides, all women scientists were an inspiration for me by whom I was able to believe that work and family can move simultaneously.

3. **Major turning points/events in your life and / or the main challenges that you have faced and how you overcame the same?**
   One of the major turning points in my life was to move outside the state for higher studies. My disease has made me more pampered and unable to come out of my niche. Making a big decision of life to self-sustain outside the home without the help of parents was a major turning point in my life. I have been able to pursue the highest degree from a reputed university only when I moved to Delhi and was every day enlightened by new things happening to me. This thing has given me a lot of confidence, and I was able to think independently for the first time in my life.

4. **In your opinion, what can be done to bridge the gender gap in STEM?**
   We should inspire more girl students towards STEM by providing them proper encouragement and to enlightening them about Science education. The example of a live role model can do wonders and inspire young girls towards STEM.
   Moreover, women should be given equal opportunities to pursue and thrive in STEM careers. STEM fields are often viewed as masculine, and teachers and parents often underestimate girls' math abilities starting as early as preschool. So, teachers' and parents' encouragement would do wonders in inclining more girl students towards STEM.

5. **Your advice to young girls and /or women aspiring to make a career in STEM**.
   My advice to young girls and women is that the present time is the era of women, and women are excelling in every field. A little patience and confidence can help the younger girls to bridge the barrier in STEM.

<table>
<tr><td>  </td><td>Sanhita Roy
Scientist
Research Biochemistry
LV Prasad Eye Institute</td></tr>
<tr><td>Broad Research Area:
Biological Sciences</td><td>Brief introduction about yourself
She is a scientist. After high school, she studied chemistry as a major and further went on to study biochemistry. She did Ph.D. from CSIR-Indian Institute of Chemical Biology and later did postdoctoral studies from Case Western Reserve University, OH, USA. She loves to read, mainly historical stories, and loves music, particularly songs of Tagore.</td></tr>
<tr><td>Research Expertise / Keywords:
Antibiotic resistance, antimicrobial peptides, innate immune response, corneal infections</td><td>Research explanation in simple language
Her research work is with corneal infections caused by various bacteria and how corneal cells respond to the infections. Antimicrobial resistance is becoming an increasing cause of concern during the treatment of infections. Her group is working to develop and study host antimicrobial peptides and small molecules to treat infections as substitutes for antibiotics.</td></tr>
<tr><td>Contact Information:
Official Email:
sanhita@lvpei.org
Official Website

Google Scholar

Twitter:@SanhitaRoy12</td><td>Significant achievements
No. of publications – 35
No. of patents – 1
No. of grants – 8</td></tr>
<tr><td colspan="2">One line/phrase that inspires you the most in your life:
Quoting Rabindranath Tagore, “Where the mind is without fear and the head is held high”</td></tr>
</table>

1. **Why did you choose STEM as a career?**
   As a child growing up in Kolkata, I used to read life stories of scientists from India and many other countries. That I feel inspired me to choose and pursue a career in science. I would say as a child I was quite inquisitive and was a very avid reader, I was very fascinated by scientific stories and science fiction.

2. **People who have inspired you the most in your life and why?**
   Of course, my parents were the first to inspire me to do well in life- be disciplined and honest. My aunt was also a huge inspiration to me. She was an academician and inspired me to dream big. I remember my chemistry teacher, who was very inspirational and instilled the love of the subject in me. And now, I would say my daughter and my husband also keep on inspiring me to balance and juggle the different roles.

3. **Major turning points/events in your life and / or the main challenges that you have faced and how you overcame the same?**
   I understand that I have been extremely lucky to pursue my passion and career without any major obstacles. I would say the most challenging time was as a young mother, without any help around in a foreign land, when I was pursuing my postdoc and was at a very interesting and happening point of my career. I took one day at a time and just kept on doing things that needed to be done. I think that's the only way to overcome it instead of overthinking. However, I must say, although looking back does not seem too bad, at that time, it was very overwhelming.

4. **In your opinion, what can be done to bridge the gender gap in STEM?**
   In my opinion, we need to make timings and opportunities more flexible to include more girls/women in STEM. We need to build strong infrastructures of child support not only at home but at workplaces that enable women at every level to keep doing science.

5. **Your advice to young girls and /or women aspiring to make a career in STEM**.
   If you really want it, keep doing it. Do not get disappointed with minor setbacks, keep your focus and just keep moving forward. The journey is sometimes tough and seems difficult, but the result is very satisfying and fulfilling when you succeed in fulfilling your dreams.

<table>
<tr><td>  </td><td>Upasana Ray
Senior Scientist and Deputy Head
Infectious Diseases and Immunology
CSIR Indian Institute of Chemical Biology</td></tr>
<tr><td>Broad Research Area:
Biological Sciences</td><td>Brief introduction about yourself
She is a virologist by profession and works on host-pathogen interactions, viral protein self-assembly and vaccine engineering. Outside the laboratory, she is also a long-distance runner/ ultrarunner, mountaineer and painter.</td></tr>
<tr><td>Research Expertise / Keywords:
Virology, self assembly, vaccine</td><td>Research explanation in simple language
Her laboratory works on understanding the biology of the Dengue virus and SARS-CoV-2. By understanding molecular interactions of viral and host proteins, her group tries to identify targets for therapeutic interventions. She uses molecular self-assembly to design vaccine candidates and target specific therapeutic delivery vehicles.</td></tr>
<tr><td>Contact Information:
Official Email:
upasana.ray@iicb.res.in
Official Website
Google Scholar
Twitter</td><td>Significant achievements
Publications: 24, Patents: 4 (1 granted)
Major honors:
SERB POWER fellowship, 2021
SERB Women excellence award, 2019
Elected as Member of Royal Society of Biology (MRSB), 2018,
Ramanujan Fellowship, DBT, 2016,
Ramanujan Fellowship, SERB, 2015
INSA medal for young scientists, 2015
Federal Technology Transfer award, NIH, 2014
Fellows award for research excellence, NIH, 2013</td></tr>
<tr><td colspan="2">One line/phrase that inspires you the most in your life:
A quote by Swami Vivekananda “Anything that makes you weak - physically, intellectually and spiritually, reject it as poison.”</td></tr>
</table>

1. **Why did you choose STEM as a career?**
   For me I followed my father's profession. He worked as a scientist, and seeing him, I also wanted to be one.

2. **People who have inspired you the most in your life and why?**
   For me, my mother has always been my best inspiration. The way she manages the family with all ups and downs inspired me to be a strong woman. My father inspired me as a scientist. I have always seen him as a very hard worker who loves his subject immensely. He is extremely disciplined in his life, and today I know how important it is to live a disciplined life. My husband has also inspired me in many ways. I get motivated similarly, as he handles all problems and responsibilities with a very calm mind.

3. **Major turning points/events in your life and / or the main challenges that you have faced and how you overcame the same?**
   I am fortunate to have supportive parents, and thus my education was smooth. As a girl, in general, I have faced problems like many others, but my education made me very strong mentally. My nature is to take challenges as opportunities to prove myself and that helped me a lot throughout my life. My selection for Ph.D. at the prestigious IISc, Bangalore, was an important turning point that changed my career totally. As an independent scientist, as I established my laboratory, I felt that women need to work much more to get highlighted academically. The key is not to give up.

4. **In your opinion, what can be done to bridge the gender gap in STEM?**
   Recruitment of women and women at decision-making positions are key factors. Often women lag due to family responsibilities. Men should be encouraged to share these. Women should be allowed flexibilities at workplaces like flexible reporting timekeeping work hours same, arrangements to bring minor kids at work etc.

5. **Your advice to young girls and /or women aspiring to make a career in STEM**.
   My only advice is that the system won't change overnight. So, women must not get exhausted fighting it. Rather, they should build themselves very strong and confident and be expressive. Never shy away if you have to make a point. If you work hard, trust your abilities, you will win.

<table>
<tr><td>  </td><td>Durba Sengupta
Senior Scientist
Physical Materials Chemistry Div.
CSIR-National Chemical Laboratory, Pune</td></tr>
<tr><td>Broad Research Area:
Biological Sciences</td><td>Brief introduction about yourself
She is a biophysicist and physical chemist who uses a computational lens to analyze how molecules in our cells function.</td></tr>
<tr><td>Research Expertise / Keywords:
Computational biology; Computational chemistry, Membrane biophysics, G protein-coupled receptors (GPCRs), Protein dynamics</td><td>Research explanation in simple language
Her research group tries to identify how factors such as genetic mutations, cholesterol, lipids, sugars and other external and internal factors affect some of the major drug targets of the cells, namely membrane proteins. Within this framework, the group has successfully designed molecules that can act as therapeutics.</td></tr>
<tr><td>Contact Information:
Official Email:
d.sengupta@ncl.res.in
Official Website
Google Scholar
Twitter: durbignon</td><td>Significant achievements
● Publications ~65; H-index: 26; Total Citations: ~3500
● Patents (1): Awarded: US, WP Filed: IN
● Editor, J. Membr. Biol. (Springer) 2019-2024
● Editorial board member: Proc. Indian Academy of Science (PINSA, India) 2020-2022
● Grants from CSIR, DBT, DST, SERB, NSM etc.
● Best scientist award (NCL) 2019
● Institute medal during MSc(Biotech) IIT -bombay, Mumbai, 2001</td></tr>
<tr><td colspan="2">One line/phrase that inspires you the most in your life:
"Don't let anyone rob you of your imagination, your creativity, or your curiosity."
- Mae Jemison, astronaut</td></tr>
</table>

1. **Why did you choose STEM as a career?**
   As a child, I was a bookworm as well as an ardent questioner. Choosing to be a researcher was a nice way to combine these two aspects.

2. **People who have inspired you the most in your life and why?**
   My inspiration started at home with my parents and sister and how smoothly they wove curiosity and information into my daily life. Our treasure trove of books definitely helped, as did our excellent school library. Some of the early influences in my life were books: science-related books such as “Mr Tompkins explores the atom” and “Double helix”, but also fiction, especially detective series. Along the way, I met several excellent mentors who showed me the way to look at problems from different perspectives, gave me flexibility, and yet opened new avenues of insight and knowledge.

3. **Major turning points/events in your life and/or the main challenges that you have faced and how you overcame the same?**
   An important challenge in my life has been to blend diversity with identity. Several aspects of my life reflect this- the languages I speak, the food I eat, the science I do and so on. Too many people today give importance to "what" you are, rather than who you are. I highly recommend everyone to not try to fit with what others want you to be, but rather who you are.

4. **In your opinion, what can be done to bridge the gender gap in STEM?**
   We need more pro-active measures at the stage between the Ph.D. and faculty stage of career, especially time flexibility, reducing age-limit barriers and having strong mentorship programs. At the same time, we need several workshops on unconscious bias for established scientists, both women and men.

5. **Your advice to young girls and /or women aspiring to make a career in STEM**.
   Keep asking questions - to yourself, to the system, to nature, to life.

<table>
<tr><td>  </td><td>Mahak Sharma
Associate Professor & DBT/Wellcome Trust India alliance Senior Fellow
Department of Biological Sciences,
IISER Mohali</td></tr>
<tr><td>Broad Research Area:
Biological Sciences</td><td>Brief introduction about yourself
She is a scientist and a teacher and has been working as an independent investigator in the area of cell biology for the past ten years. She greatly enjoys the process of discovering new things in science and otherwise and acquiring new knowledge. She is an avid nature lover.</td></tr>
<tr><td>Research Expertise / Keywords:
membrane trafficking, lysosome, cell biology, vesicular transport</td><td>Research explanation in simple language
"Location, location, location," this phrase applies to proteins in human cells that must be transported to their proper functional location. She is interested in how proteins produced in one compartment of cells are packaged in vesicles and transported to their final functional destination. Several human genetic disorders are caused by the disruption in transport pathways.</td></tr>
<tr><td>Contact Information:
Official Email:
msharma@iisermohali.ac.in
Official Website
Google Scholar
Twitter:
@MahakSharma23</td><td>Significant achievements
Total peer-reviewed publications: 29, h-index: 18
2020: Awarded BM Birla Science Prize in Biology
2019: Awarded Wellcome Trust/DBT-India Alliance Senior Fellowship
2018: DBT-National Women Bio-scientist Award
2018: NASI-Young Scientist Platinum Jubilee Award
2018: INSA Medal for Young Scientist
2018: Member of the Indian National Young Academy of Science (INYAS, INSA)
2017: SERB-Women Excellence Award
2015: Young Associate of the Indian Academy of Sciences
2012: Awarded Wellcome Trust/DBT-India Alliance Intermediate Fellowship</td></tr>
<tr><td colspan="2">One line/phrase that inspires you the most in your life:
“You can never be wise and old if you haven’t been young and crazy”</td></tr>
</table>

1. **Why did you choose STEM as a career?**
   "Science as a way of life" was the guiding principle in my home, where my parents, a surgeon and a gynecologist, raised my sister and me. My childhood experiences, like mixing and seeing things under a microscope led me to develop a love for "life sciences", which eventually led me to choose science as a career and begin my own journey of discovery.

2. **People who have inspired you the most in your life and why?**
   First and foremost, it was my parents, particularly my mother, who instilled in me the seed of curiosity that motivated me to pursue a career in science. For my Ph.D. research, I was also fortunate to work in Prof. Steve Caplan's laboratory at the University of Nebraska Medical Center. Steve and Naava, a co-investigator, were fantastic mentors to me and were instrumental in inspiring me to pursue a career in research. During this time, my interest in cell biology was cemented, and I have since continued to work in this field.

3. **Major turning points/events in your life and / or the main challenges that you have faced and how you overcame the same?**
   With almost a decade of running my lab at IISER Mohali, I share here challenges that I have faced, and solutions that remain work in progress. My ability to devote time to research has significantly reduced after having a child. Even with a supportive spouse, I find that bearing a child has disproportionately affected my work. Flexible work hours and the ability to plan my day worked well for me. I am a firm believer that flexible work hours, on-campus housing, and a good crèche facility on-site or nearby can all help young working mothers manage their days more effectively.

4. **In your opinion, what can be done to bridge the gender gap in STEM?**
   Discussion forums for Ph.D./postdocs, where they share their apprehensions about continuing in science while raising a family might help to retain women scientists into the system. Implicit gender-specific biases exist in academia. Running workshops that help in counteracting biases are required. Decision-making committees must be diverse and gender-balanced.

5. **Your advice to young girls and /or women aspiring to make a career in STEM**.
   It is important to value yourself. Do not look for perfection in the various hats that you are wearing. As Dory the fish from Finding Nemo says, “Just keep swimming”.

<table>
<tr>
<td>  </td>
<td>Rohini Garg
Associate Professor
Department of Life Sciences,
Shiv Nadar University,
Gautam Buddha Nagar
Uttar Pradesh-201314</td>
</tr>
<tr>
<td>Broad Research Area:
Biological Sciences</td>
<td>Brief introduction about yourself
Dr Rohini Garg did her Masters in Plant Molecular Biology from Delhi University, South Campus (UDSC), followed by a Ph.D. from the National Institute of Immunology, New Delhi. She then joined NIPGR, New Delhi as INSPIRE faculty fellow before joining SNU as an Assistant Professor in the Department of Life Sciences, SNU.</td>
</tr>
<tr>
<td>Research Expertise / Keywords:
Plant Epigenomics, Gene regulation, Plant development</td>
<td>Research explanation in simple language
Her group works in the area of plant genomics, transcriptomics and epigenomics to understand gene regulation with a focus on understanding the DNA methylation modifications and their effect on gene expression during abiotic stress response and development in plants. Her group is trying to understand how DNA secondary structures, specifically G-quadruplexes regulate gene expression and plant development. Her group utilizes big data analysis approaches along with plant molecular biology and protein biochemistry to study plant biology.</td>
</tr>
<tr>
<td>Contact Information:
Official Email:
rohini.garg@snu.edu.in
Official Website

Google Scholar
FB</td>
<td>Significant achievements
❖ SERB Women Excellence Award, March 2017.
❖ Associate of Indian Academy of Sciences (2016-2019)
❖ Young Scientist Platinum Jubilee Award (2014) from NASI.
❖ Indian National Science Academy (INSA) medal for Young Scientist (2014).
❖ Innovative Young Biotechnologist Award 2012 from DBT.
❖ INSPIRE Faculty Fellowship 2011 from DST.
❖ University gold Medal for First-Class-First position in M.Sc. Plant Molecular Biology from DU, New Delhi.
❖ Monsanto Post-graduate merit scholarship for two years (2002-2004).</td>
</tr>
<tr>
<td colspan="2">One line/phrase that inspires you the most in your life
“A person who never made a mistake never tried anything new.” by Albert Einstein</td>
</tr>
</table>

1. **Why did you choose STEM as a career?**
   I always enjoyed doing science in school, especially biology, especially experiments to understand concepts and finding answers to biological phenomena happening around me. STEM became a natural career option as it encourages critical thinking and collaboration. It also gave me an opportunity to encourage young minds.

2. **People who have inspired you the most in your life and why?**
   My Mother inspired me the most to become independent and choose my dream to be a researcher that involved long working hours. I was lucky to have excellent mentors Prof. JP Khurana and Dr. Ayub Qadri who had not only ignited the fire for doing research but also mentored me for a career in Science. Also, many women scientists, including Prof. Rupamanjari Ghosh, whom I look upon for scientific and leadership skills.

3. **Major turning points/events in your life and / or the main challenges that you have faced and how you overcame the same?**
   The main challenge is to maintain a work-life balance as having a research lab means you have to sometimes choose between family and meeting various deadlines. I was able to overcome these challenges with the support of my family (my husband), who is very supportive of me giving that extra time to my work. Also, I guess having a set of very close friends who helped me refresh and rewind whenever needed.

4. **In your opinion, what can be done to bridge the gender gap in STEM?**
   I guess it's important that young girls see that there are many women scientists who are doing good science and also are in leadership positions to boost their confidence. I still remember that as a young girl, I once saw a programme on the DD channel where Dr. Manju Sharma, then DBT secretary gave a tour of a research lab that was very exciting to see and sowed the seed of research in me. Also, there should be leadership workshops for women to guide them about effective administrative and communication strategies to bridge the gender gap.

5. **Your advice to young girls and /or women aspiring to make a career in STEM**.
   Be honest with your work and focus on giving your best and results will follow. Have a set of close friends as your support system.

<table>
<tr><td>  </td><td>Niti Kumar
Sr. Scientist
Molecular Microbiology and Immunology
CSIR-CDRI</td></tr>
<tr><td>Broad Research Area:
Lifesciences</td><td>Brief introduction about yourself
She completed her graduation and post-graduation from Delhi University, followed by PhD from CSIR-IGIB. After post-doctoral work at Max Planck Institute of Biochemistry, Germany, she joined CSIR-CDRI, where she started working in the malaria field, which was a completely different area from her previous training.</td></tr>
<tr><td>Research Expertise / Keywords:</td><td>Research explanation in simple language
Her lab is investigating critical parasite genome (telomere homeostasis) and proteome (proteostasis) maintenance pathways and trying to understand how they give a competitive edge to malaria parasites. Her lab is also involved in the exploration of novel hits/lead compounds against drug-resistant malaria and their probable mode of action.</td></tr>
<tr><td>Contact Information:

Official Email:
niti.kumar@cdri.res.in

Official Website</td><td>Significant achievements
She has received various national and international recognitions such as Marie Curie fellowship, Max Planck post-doctoral fellowships, SERB Women excellence award from DST, Innovative Young Biotechnologist Award from DBT, Young scientist award from INSA. Recently, she received the Swarnajayanti Fellowship from DST.</td></tr>
<tr><td colspan="2">One line/phrase that inspires you the most in your life
Light at the end of the tunnel!!</td></tr>
</table>

1. **Why did you choose STEM as a career?**
   Well, this was not a conscious decision. My interest in biology and chemistry just attracted me to pursue studies in Lifesciences. Further, I met wonderful people during this journey who motivated me to take up a career in STEM.

2. **People who have inspired you the most in your life and why?**
   My school teachers instilled an interest in science both through theoretical and practical examples. During my summer training and dissertation work, Dr. Souvik Maiti who later became my Ph.D. supervisor, played an instrumental role. He patiently mentored me and helped me evolve as a good researcher and human being.

3. **Major turning points/events in your life and / or the main challenges that you have faced and how you overcame the same?**
   My post-doc time was not productive. Despite slogging for 5 years, experiments did not work to make a decent publication. So, I lost the confidence and thought that I will never be able to have an active research career. My Ph.D. mentor was very encouraging and told me to start from smaller positions and write research grants. My initial appointment had project management responsibilities, but with independent grants, I was able to engage in active research.

4. **In your opinion, what can be done to bridge the gender gap in STEM?**
   I think more avenues of employment are required as mainstream and alternative science careers for both genders. This will help the couples to take up careers within the same city and help in maintaining the work-family balance.

5. **Your advice to young girls and /or women aspiring to make a career in STEM**.
   Don't be deterred by challenges. Just be consistent, confident and keep looking for avenues and opportunities. Be ready for new things and adapt to new settings. The journey begins with small steps.

<table>
<tr><td>  </td><td>Priyanka Bajaj
Assistant Professor,
Biocatalysis and Biopharmaceuticals Lab
National Institute of Pharmaceutical Education and Research (NIPER)
Hyderabad</td></tr>
<tr><td>Broad Research Area:
Biological Sciences</td><td>Brief introduction about yourself
She is a young and dynamic person currently exploring her role as an Assistant Professor at NIPER, Hyderabad, a National Institute of Importance.</td></tr>
<tr><td>Research Expertise / Key words:
Biochemistry,
Green Chemistry,
Biocatalysis,
Biotransformations,
Biopharmaceuticals</td><td>Research explanation in simple language
Her research is focused on developing new biocatalysis (enzyme) based green processes for the synthesis of pharmaceutical drugs.</td></tr>
<tr><td>Contact Information:
Official Email:
pbajaj.04@niperhyd.ac.in
Official Website

Google Scholar

Twitter</td><td>Significant achievements
In total 22 International Publications
2 Granted and 1 applied Indian patent
2 international patent applications
19 national/international awards including selection for Nobel Laureate Meet, Lindau, Selected up to pre-final level for “International Innovation Cup” science competition by Merck, Germany, DST-Inspire fellowship, CSIR-SPM fellow and Academic achievement award from CM, Haryana</td></tr>
<tr><td colspan="2">One line/phrase that inspires you the most in your life:
Lets try and see where it goes</td></tr>
</table>

1. **Why did you choose STEM as a career?**
   There is no domain of our life that has not been impacted by the advancement of science. However, sustainable development is the goal of our civilization. My main interest in science lies in developing green and bio-based processes for industries to make our development more sustainable.

2. **People who have inspired you the most in your life and why?**
   My Mother- For her perseverance and untiring efforts for everything she does

3. **Major turning points/events in your life and / or the main challenges that you have faced and how you overcame the same?**
   Getting my first research project funded through the Govt. of India for the whopping amount of 11240000 INR was the first milestone in my journey of becoming a project leader. Also, mentoring the students working on the project in the right direction and pouring the favorable results from the project gave me further confidence in my vision.

4. **In your opinion, what can be done to bridge the gender gap in STEM?**
   To normalize the working style of a woman. We understand that men and women are psychologically and physiologically different. So, It is obvious that their working styles will also be different. Thus, to bridge the gender gap, we would have to acknowledge this difference and also accept it and normalize it.

5. **Your advice to young girls and /or women aspiring to make a career in STEM**.
   Be yourself; the world will adjust.

<table>
<tr><td>  </td><td>Veda Krishnan

Scientist, Senior scale

Department of Biochemistry, ICAR - Indian Agricultural Research Institute (IARI), New Delhi, India

Indian Council of Agricultural Research</td></tr>
<tr><td>Broad Research Area:

Biological Sciences</td><td>Brief introduction about yourself

She is a nutritional biochemist with more than 10 yrs of experience. She is currently leading a research program/team with a central focus on the nutritional and health attributes of agri-food derived components.</td></tr>
<tr><td>Keywords:

Nutritional enhancement; bio-functional foods; Global health</td><td>Research explanation in simple language

Dr. Veda’s research focus is to explore and characterize the components of food at the molecular level with the ultimate objective of enhancing global human health.</td></tr>
<tr><td>Contact Information:

Official Email:
vedakrishnan@icar.gov.in
veda.krishnan@iari.res.in

Official Website:
www.iari.res.in

Google Scholar</td><td>Significant achievements

Dr. Veda has authored/co-authored about 60 original research articles/reviews in refereed international journals. She has a granted patent (341699) and one submitted to her credit. She was the recipient of Fulbright-Nehru postdoctoral fellowship (2020-2021), Best innovator award - flora fauna summit-2021, Plantae Fellow 2020, INSA-IASc summer fellowship, DST-ITS travel grant-2018, Young Scientist Award (ISPP-2018 and ICRB-2014), Agriculture research service -2010.</td></tr>
<tr><td colspan="2">One line/phrase that inspires you the most in your life:

It is better to look back at life and say: 'I can't believe I did that' than to look back and say: 'I wish I did that’.</td></tr>
</table>

1. **Why did you choose STEM as a career?**
   Since childhood, I was curious about mysteries in Science. During my school days, I got lucky to get selected in the prestigious "**Promotion of excellence among gifted children**" programme by the Government of Kerala, where we interacted with real-life professors & scientists and visited science museums and performed independent experiments, which kindled my passion to pursue my career in STEM research.

2. **People who have inspired you the most in your life and why?**
   Biochemistry of my life (Bio-father and Chemistry-mother) are the two strong pillars of inspiration that motivated and critically fine-tuned me and my dreams to date. I owe a lot to my teachers, who acted as real catalysts in my life. Being life-long learners, we learn and re-learn from many; however, I consider Padmashri (s) Sudha Murty (Infosys) and Indira Nooyi (Ex-CEO PepsiCo) as my inspirations as they penetrated to the grass-root level with their life.

3. **Major turning points/events in your life and / or the main challenges that you have faced and how you overcame the same?**
   Being laser-focused towards commitments and considering challenges as opportunities was my mantra to date. More than lack of opportunities, sometimes a few tempting opportunities become a roadblock in life. In my journey, clearing AFMC and getting a Govt job at the age of 18 were the major challenges, which stood against my dream of research. But I pursued my passion despite the financial support withdrawn by my family and even fought against the system for getting a merit seat. Major turning points in life were "promotion of excellence programmes" in school that got me into science and ARS, which defined my career. I believe I could overcome the challenges as I believed in myself and always enjoyed the journey without focusing much on the outcome.

4. **In your opinion, what can be done to bridge the gender gap in STEM?**
   In these male-dominated spaces, more than support and acceptance from men, I believe we need to develop sisterhoods as well as women ambassadors. To level the field, let's attract and support more girls and women in STEM consciously. As women could relate and connect well, I believe we should provide an opportunity for other women to grow without being judgmental.

5. **Your advice to young girls and /or women aspiring to make a career in STEM**.
   "Why" is more important than "how", so weave the sense of purpose into your life with indomitable spirit and passion; then you are unstoppable. For a successful career, be a lifelong learner, invest in your soft skills (communication, analytical, etc) as much as hard skills.

<table>
<tr><td>  </td><td>Dhanya Lakshmi Narayanan
Associate professor
Department of Medical Genetics, Kasturba Medical College, Manipal
Manipal Academy of Higher Education, Manipal, India</td></tr>
<tr><td>Broad Research Area:
Biological Sciences</td><td>Brief introduction about yourself
She is a clinical geneticist interested in the evaluation and management of families with rare genetic conditions. She is passionate about working for the cause of families with rare diseases. She is also actively involved in spreading awareness about genetic diseases. She writes popular science stories in print and electronic media.</td></tr>
<tr><td>Research Expertise / Keywords:
Rare diseases
Mendelian diseases
Autoinflammatory diseases</td><td>Research explanation in simple language
Her major area of interest is a rare group of genetic diseases known as monogenic autoinflammatory diseases. She uses clinical, genomic and functional approaches to understand the cause of these groups of diseases. Understanding the genetic basis of these diseases has a direct translational benefit and may influence the therapeutic strategies.</td></tr>
<tr><td>Contact Information:
Official Email:
dhanya.lakshmi@manipal.edu
Official Website:

Scopus ID:
(55660705300)
Google Scholar
Twitter: @drdhanyalakshmi
FB: (Dhanya Narayanan)</td><td>Significant achievements- Publications: 34
DBT Wellcome Trust India Alliance Early Career Clinical and Public Health Fellowship, 2020
● Developing country award by the European Society of Human Genetics in 2019
● International Travel Support from Department of Science and Technology, Government of India for attending European Human Genetics Conference at Gothenburg, Sweden in 2019
● Fellowship by ESHG/ERN- ITHACA for attending Manchester Dysmorphology Course in 2018
Grant: DBT/Wellcome Trust India Alliance grant</td></tr>
<tr><td colspan="2">One line/phrase that inspires you the most in your life
“Smile, breathe and go slowly.” — Thich Nhat Hanh</td></tr>
</table>

1. **Why did you choose STEM as a career?**
   My parents encouraged scientific thinking and inquiry. After specialisation in pediatrics, I developed a keen interest in understanding the genetic basis of human diseases. I was fascinated by the translational benefits of genomic medicine research. As a clinician, in addition to patient care, I wanted to contribute more to the scientific advances in genomic medicine.

2. **People who have inspired you the most in your life and why?**
   My father encouraged me to read a lot from early childhood. He took special effort in taking me and my brother to the local library on most days of the week. Since then, a lot of authors and their books have inspired me. I have been deeply influenced by the writings of Simone de Beauvoir, bell hooks and Gloria Steinem. Jennifer Doudna, who won the Nobel prize for CRISPR gene-editing technology, inspires me through her work and progressive views on promoting diversity and collaboration in science.

3. **Major turning points/events in your life and / or the main challenges that you have faced and how you overcame the same?**
   At 28 years, a life-changing personal event occurred, which completely altered how I viewed the world. I came to believe more in the good of human beings around me rather than trust in an invisible superpower. I started accepting the randomness and fragility of human life. I was fortunate to have a supporting family, close friends, teachers, and colleagues who believed in me and helped me navigate through that period. I am grateful to all of them.

4. **In your opinion, what can be done to bridge the gender gap in STEM?**
   The first step towards bridging any gender gap is to impress upon women about the existence of such a divide. Courses about gender should be made part of the medical education curriculum at the degree level. In addition, exposure to literature and critical thinking should be encouraged among doctors. Attending gender sensitisation workshops should be made a criterion for promotion in medical colleges.

5. **Your advice to young girls and /or women aspiring to make a career in STEM**.
   Slow down and listen to yourself. Seeking help is not a sign of weakness. Finding a mentor with scientific acumen and progressive values is important.

<table>
<tr><td>  </td><td>Jiban Jyoti Panda
Scientist
Chemical Biology Unit, Institute of Nano Science and Technology, Mohali, Punjab</td></tr>
<tr><td>Broad Research Area:
Biological Sciences</td><td>Brief introduction about yourself
Dr. Jiban Jyoti Panda is a nano biomedical scientist working in the field of nanomedicine, neuronal drug delivery and cancer nanotheranostics. She obtained her master’s degree from Utkal University, Odisha, and her Ph.D. in biotechnology from the International Centre for Genetic Engineering and Biotechnology, New Delhi.</td></tr>
<tr><td>Research Expertise / Keywords:
Nanomedicine, neural-drug-delivery, blood-brain-barrier, peptides, self-assembly</td><td>Research explanation in simple language
She works in the area of Nano-biomedicine. Her research work involves the design and synthesis of novel biomolecule-derived nanoparticles for achieving effective therapeutic delivery to brain/CNS tissues, being protected by various physiological barriers and are unapproachable to therapeutic molecules. She also develops nanomedicine-based formulations for effective cancer therapy.</td></tr>
<tr><td>Contact Information:
Official Email: jyoti@inst.ac.in
Official Website: http://www.inst.ac.in/faculty/dr_jyoti.html
Google Scholar:

FB: Jiban Jyoti</td><td>Significant achievements
Publications: 55, Patent: 1, Grants: 5
Awards/honors: Har Gobind Khorana Innovative Young Biotechnologist Award 2021; ICMR-DHR International Faculty Fellowship 2019; Inspire Faculty Fellowship 2013; DBT-BIOCARE Award 2017, The UNESCO-L'Oreal Fellowship for Young Women in Science 2011, Graduate Student Symposium award in Formulation Design and Development, American Association of Pharmaceutical Scientist, 2012. OPPI Young Scientist award 2011; Budding Nanotechnologist award, DBT, 2010.</td></tr>
<tr><td colspan="2">One line/phrase that inspires you the most in your life:
“Believe you can and you’re halfway there.” – Theodore Roosevelt</td></tr>
</table>

1. **Why did you choose STEM as a career?**
   Science as a subject has always fascinated me since childhood. I was deeply saddened to witness the pain of people afflicted with different ailments. This eventually kindled a desire to understand the root cause of various debilitating diseases, and I became interested in pursuing a career in science.

2. **People who have inspired you the most in your life and why?**
   From my childhood, I always aspired to be a scientist. So, I started taking interest in the lives and achievements of the world's scientific leaders. In that pursuit, being a woman scientist, I got truly inspired by the life of Madame Marie Curie, and she became my role model. Madan Marie Curie is known for her revolutionary research on radioactivity. She was the first woman to win a Nobel Prize, the first person and the only woman to be honoured with the Nobel Prize twice and in two scientific fields. I am greatly inspired by her research and scientific achievements.

3. **Major turning points/events in your life and / or the main challenges that you have faced and how you overcame the same?**
   As a female, the major challenge came to me when I completed my schooling and had to leave home to get enrolled in Utkal University for my undergraduate studies. As the eldest of three daughters and with my father serving in military services, I had to handle many matters on my own. I experienced many hurdles as a female. But then those struggles gave me a lot of strength and made me truly independent in handling many other aspects/issues of my life.

4. **In your opinion, what can be done to bridge the gender gap in STEM?**
   To bridge the gender gap in STEM, female students should be persuaded from the very beginning of their careers to pursue higher education in scientific fields. Various schemes, fellowships and scholarships should be rolled out by the government to further support and encourage girls in the field of science.

5. **Your advice to young girls and /or women aspiring to make a career in STEM**.
   Young girls/women interested in pursuing scientific careers should make constant and persistent efforts to realize their scientific dreams and stand strong for the same in case of all odds.

<table>
<tr><td> 
</td><td>Kalpana Nagpal
Associate Professor
Amity Institute of Pharmacy
Amity University, Noida (India)</td></tr>
<tr><td>Broad Research Area:
Biological Sciences</td><td>Brief introduction about yourself
Dr. Kalpana Nagpal is a teacher by profession and researcher by passion. Her key interest area is Pharmaceutical Sciences.</td></tr>
<tr><td>Research Expertise / Keywords:
Novel drug delivery; chitosan nanoparticles, Design of Experiment; targeted drug delivery</td><td>Research explanation in simple language
Formulation development and optimisation of novel dosage forms for targeted drug delivery. Major area is targeting cancer and neurological disorders using polymeric nanoparticles.</td></tr>
<tr><td>Contact Information:
Official Email:
knchaswal@amity.edu

Official Website

Scopus ID
(57205515372),
Google Scholar,
Twitter
(@kalpananagpal),
FB</td><td>Significant achievements
Total Publications: 42; Citations 1621; h-index 17;i10-index 26
-International Travel Grant by DST SERB , 2019
- Elsevier's outstanding Reviewer Award July 2017, June 2017
-Sir CV Raman Scholarship (2010-13)
-GATE Fellowship (2007-09)
- Gold Medalist (M.Pharm) (2007-09)
-Gold Medalist (B.Pharm) (2003-07)</td></tr>
<tr><td colspan="2">One line/phrase that inspires you the most in your life:
“Failure is only the opportunity to begin again, only this time more wisely.” - Henry Ford</td></tr>
</table>

1. **Why did you choose STEM as a career?**
   Being the youngest and only sister of the two brothers pursuing engineering, I was always fascinated with science discussed by my brothers at home. It created interest for me, but my inclination was towards life sciences.

2. **People who have inspired you the most in your life and why?**
   My parents are a true inspiration to me. My father was a postmaster who always performed his central government services with full dedication and honesty. He always encouraged human values, hard work and taught me to avoid the shortcuts for true learning. My mother served as a teacher. She inspired me to be punctual and disciplined in life, which helped me achieve my goals and targets in time. The environment around me was a true inspiration to do what I wished. These human values groomed my decision-making and self-management skills, ultimately improving my self-confidence throughout.

3. **Major turning points/events in your life and / or the main challenges that you have faced and how you overcame the same?**
   I was district topper in Class V. My parents admitted me to a new English medium school in Class VI. But, when I attended the new school, I was unable to understand the concept as I knew the same concept in Hindi. I was losing my confidence. My father observed this. He guided me to prepare a separate notebook where I started writing these terminologies in both Hindi and English. That notebook became my real key to getting back my confidence, and I was again the topper of my new class of English Medium. I learned that hurdles can be overcome by proper planning.

4. **In your opinion, what can be done to bridge the gender gap in STEM?**
   The government is already taking so many good initiatives to bridge this gap like women scientist schemes etc. The provision like age liberty, in many other schemes, is one such example which is a very good step. In my opinion, creating more and more awareness, motivation and the correct implementation of various good schemes can be necessary to overcome the gender gap in STEM.

5. **Your advice to young girls and /or women aspiring to make a career in STEM**.
   In my opinion, young girls and women should be more attentive and aware, utilize the internet resources to be alert about the various schemes, and seek guidance from their seniors to excel in the STEM field.

<table>
<tr><td>  </td><td>Kiran Bala
Associate Professor
Department of Biosciences and Biomedical Engg.,
Indian Institute of Technology Indore, M.P.</td></tr>
<tr><td>Broad Research Area:
Environmental Biotechnology</td><td>Brief introduction about yourself
Dr. Kiran Bala has more than 15 years of research experience working with Algae and Cyanobacteria for different environmental applications.</td></tr>
<tr><td>Research Expertise / Key words:
Phycotechnology, Algae-Bacteria Interactions, Bioenergy, Biopolymers</td><td>Research explanation in simple language
Exploring algal biorefinery to target bioproducts, wastewater treatment, and carbon sequestration with an additional source of nutraceuticals.</td></tr>
<tr><td>Contact Information:
Official Email:
kiranb@iiti.ac.in
Official Website:

Google Scholar:

LinkedIn</td><td>Significant achievements
Total Publications: 49;Citations 2459; h-index 20; i10-index 27
Core committee member of DRISHTI-CPS based TIH at IIT Indore with a tentative cost of Rs. 100 crore-2020
SERB Early Career Research Award-2018
NFP–NUFFIC for refresher course (2015), Short term course (2008)
DST INSPIRE FACULTY Award-2012
DBT Bio-CARe Women Scientist Award-2011
UGC- Dr. D. S. Kothari Post Doctoral Fellowship-2009
Awarded scholarship for Training Program at Johns Hopkins Bloomberg School of Public Health (JHSPH)-2008
Grants from DBT, DST, SERB, MOES, DAAD</td></tr>
<tr><td colspan="2">One line/phrase that inspires you the most in your life:
“Wake up with determination, Go to bed with satisfaction”</td></tr>
</table>

1. **Why did you choose STEM as a career?**
   My father played a key role with all the support and motivation in choosing science as a career. Small observations under the microscope, the presence of bacteria in curd or even inside the human body, etc. made me run to know more. Finally, I decided when I understood the potential applications in serving society.

2. **People who have inspired you the most in your life and why?**
   Two ladies- my mother, who worked as primary school Principal, and my Ph.D. supervisor, Prof. Anubha Kaushik, loaded me with dedication and integrity. I have seen them working hard and achieving success with a perfect balance between family and professional life.

3. **Major turning points/events in your life and / or the main challenges that you have faced and how you overcame the same?**
   Maternity time coincided with my early career stage and landed me a break in my career. The struggle went on for some time, managing between two babies and the career. But I felt that when we are supportive and true to ourselves, things and people around us also put positive energy to support. My husband has a special role in bringing the situation in the right direction. The most important is not to lose hope in a low time of life; just keep tracking your dreams.

4. **In your opinion, what can be done to bridge the gender gap in STEM?**
   Society's Mindset is changing slowly and as a female, I can feel the change. The government is supporting female students /researchers with different initiatives. Additionally, there is a need to bring awareness to male researchers/colleagues/ family members so that they can help and support at various stages.

5. **Your advice to young girls and /or women aspiring to make a career in STEM**.
   Be focused, dedicated and take determined steps to fulfil your dreams. There are many options in STEM supported by national and international agencies.

<table>
<tr><td>  </td><td>Meghna Krishnadas
Senior Scientist
Laboratory for Conservation of Endangered Species
Centre for Cellular and Molecular Biology
CSIR</td></tr>
<tr><td>Broad Research Area:
Biological Sciences</td><td>Brief introduction about yourself
She is an ecologist. When not thinking of science, she likes to run, practice yoga and try out new fitness regimens. Good books, great conversation, and gastronomy rank high in her life agenda and someday she would like to farm (at least some of) her food.</td></tr>
<tr><td>Research Expertise / Keywords:
Ecology,
plant communities,
human impacts,
global environmental change</td><td>Research explanation in simple language
She seeks to understand the mechanisms that allow species to coexist and thus maintain diversity in ecological communities. Using functional traits—heritable characteristics that mediate species' response to different conditions— she investigates the processes that shape biodiversity in different ecosystems.</td></tr>
<tr><td>Contact Information:
Official Email:
meghna@csirccmb.org
Official Website:
The CaFE lab
Google Scholar
Twitter</td><td>Significant achievements
Authored 24 research articles in international peer-reviewed journals and 5 peer-reviewed policy articles.
Regular contributor of outreach articles on public platforms.
Invited member of two leading international working groups to advance concepts in the field of plant community ecology.</td></tr>
<tr><td colspan="2">One line/phrase that inspires you the most in your life:
Be anti-fragile.</td></tr>
</table>

1. **Why did you choose STEM as a career?**
   I switched to a career in science for the sheer love of the natural world. I enjoy the challenge of cracking nature's workings and the thrill of discovery. Science also gives me a lot of intellectual freedom, which I cherish.

2. **People who have inspired you the most in your life and why?**
   NA.

3. **Major turning points/events in your life and / or the main challenges that you have faced and how you overcame the same?**
   Turning points:
   A visit to BR Hills Tiger Reserve and seeing a Sambhar deer in the wild for the first time.
   Working with the Nature Conservation Foundation in Namdapha Tiger Reserve, Arunachal Pradesh, where I lived out of my backpack in a forest for months.
   Gaining admission into the master's program in Wildlife Biology and Conservation at NCBS
   Challenges:
   Making the shift from medicine to ecology. It took time, I faced opposition and criticism from my family, had to work in low-paying positions.
   Lone woman doing fieldwork in rural areas. I have faced open and hidden sexism from colleagues, forest department staff and field workers.
   Finding a job in Indian academia. Too many rigid rules and hoops to jump through. I have written about it here.

4. **In your opinion, what can be done to bridge the gender gap in STEM?**
   Get more girls to lead and implement science projects in school.
   Build confidence among female undergraduate and graduate students that science allows you respect and independence.
   Regular workshops and interactive sessions with female Ph.D. students and postdocs.
   Child care and family support for female scientists.
   Active hiring of women at all levels.
   Flexible workspace and work hours (this should be a general practice).
   Actively recruit into leadership positions women faculty who have a demonstrated track record of promoting equitable workspaces and working for women's empowerment.
   Ensure 50-50 representation of women in panels, decision-making bodies, administrative roles, and policy forums.
   Have regular and thorough institutional reviews for women's inclusion and equity.

5. **Your advice to young girls and /or women aspiring to make a career in STEM**.
   Follow your passion. Don't give in to anyone else's opinion on how you should be or what you should do. Stand up for yourself and for what you believe is right and do not give up if there are failures. Be persistent and resilient.

CHEMICAL SCIENCES

<table>
<tr><td>  </td><td>Ranjani Viswanatha
Associate Professor
International Centre for Materials Science and New Chemistry Unit.
Jawaharlal Nehru Centre for Advanced Scientific Research</td></tr>
<tr><td>Broad Research Area:
Chemical Sciences</td><td>Brief introduction about yourself: She is a professor at the Jawaharlal Nehru Centre for Advanced Scientific Research, Bangalore, working at the interfaces of physics and chemistry in the field of nanomaterials. She obtained her doctoral degree from IISc, Bangalore, and after a couple of post-doctoral stints, she joined JNCASR. She has been awarded several national and international recognition as a distinguished scientist.</td></tr>
<tr><td>Research Expertise / Keywords: Quantum Dots, Magneto-optics, Electronic Structure, Nanophotonics</td><td>Research explanation in simple language
Her research focuses on the synthesis and the study of magnetic, optical, magneto-optical properties, leading to the understanding of their electronic structure in transition metal-doped and undoped semiconductor nanocrystals and metal-semiconductor hybrid structures. It leads to better, stable and low-cost devices for LED and solar cell applications.</td></tr>
<tr><td>Contact Information:
Official Email:
rv@jncasr.ac.in
Official Website
Google Scholar
Twitter:
@QuantumDotLab1
Facebook:</td><td>Significant achievements
Total number of Publications: 85, Patents: 2
Major Awards: SERB POWER Fellowship (2021)
Editorial Advisory Board of ChemPhotoChem, Nanofutures
“Women in the forefront of Energy Research” by ACS Energy Letters (2020)
CRSI Bronze Medal (2020)
C. V. Raman Award by Karnataka State (2019)
MRSI Medal (2018)
Profiled in “Profiles of Women Scientists in Asia”
Indian National Science Academy Young Scientist Medal (2014)</td></tr>
<tr><td colspan="2">One line/phrase that inspires you the most in your life:
Science is fun, rewarding and offers independence like no other profession that one feels that work is fun.</td></tr>
</table>

1. **Why did you choose STEM as a career?**
   My mother recognized my passion and curiosity at the early age of about 4-5 years old child. She has since feathered the flames by imparting a lot of non-traditional learning and thinking, being supportive of my non-trendy decisions and with suitable advice at appropriate times. It made me seamlessly go from a doctoral degree to being a scientist almost as easily as one would go from first to tenth grade in school.

2. **People who have inspired you the most in your life and why?**
   My career in science started taking shape unbeknownst to me when a few like-minded scientists realized that science in Karnataka, India, was suffering from a lack of proper guidance and as well as scientific thinking. Jawaharlal Nehru Planetarium started the non-traditional learning programme on weekends to supplement the college education along with a few scientists wherein emphasis was on how to approach the problem with scientific thinking rather than solving the problems. Later, once I started my doctoral degree, I have learnt a lot from my doctoral supervisor, which helped consolidate my career in science.

3. **Major turning points/events in your life and / or the main challenges that you have faced and how you overcame the same?**
   The biggest challenge I faced is the consequences of a patriarchal family that is largely dominant in Indian society. I did face a lot of discrimination when it was time to get married. Almost regularly, men personally feel insecure if their wives outperform them, and societal pressures also build up. Hence doing well in studies and having a successful accomplished career felt like a negative for me, and I was obliged to either give up my career or forget the dream of having a family. But I choose to face the societal pressures by first building a stable career and then my dream family with the support of my parents and my son.

4. **In your opinion, what can be done to bridge the gender gap in STEM?**
   The gender gap in STEM can only be addressed from the grass-root level. Initiatives that educate the young boys to respect women and girls of the society and open opportunities for young girls play an important role. In a diverse country like India, wherein learned academies host many female scientists while female foeticide is still prevalent, initiatives to address pre-determined gender roles are paramount.

5. **Your advice to young girls and /or women aspiring to make a career in STEM**.
   For the future generation irrespective of their gender, science is very gratifying profession. For all the hard work and dedication, which is part of being a successful scientist, the excitement of being the first one to discover something gives immense satisfaction and work feels like fun. It is a myth that says that science is not compatible with being a mother. Science strengthens the mind and poses endless challenges that need to be solved creatively. So, once a scientist, always a scientist, even at home, leading to rewarding motherhood.

<table>
<tr><td>  </td><td>Sharmistha Dutta Choudhury

Scientific Officer G
Radiation & Photochemistry Division/ Bhabha Atomic Research Centre, Mumbai 400085
& Associate Professor
Homi Bhabha National Institute, Mumbai 400094</td></tr>
<tr><td>Broad Research Area
Chemical Sciences</td><td>Brief introduction about yourself
Dr. Dutta Choudhury obtained M. Sc. degree with a gold medal from Jadavpur University in 2000. She carried out her Ph.D. research at the Saha Institute of Nuclear Physics and subsequently joined BARC, Mumbai to pursue a career in science. She also visited the University of Maryland, Baltimore as an Indo-US research fellow.</td></tr>
<tr><td>Research Expertise / Keywords:
Fluorescence spectroscopy, Plasmon-coupled emission, Supramolecular photophysics</td><td>Research explanation in simple language
Dr. Dutta Choudhury’s research focuses on expanding the scope of fluorescence for advanced applications. She investigates the photophysics of molecular probes and luminescent nanomaterials and modulates their fluorescence properties through simple supramolecular interactions. She also studies the coupling of fluorophores with plasmonic and photonic materials to obtain bright, photostable and directional emission.</td></tr>
<tr><td>Contact Information:
Official Email:
sharmidc@barc.gov.in
Google Scholar
Scopus</td><td>Significant achievements
Awarded gold medals in B.Sc., Utkal University and M.Sc., Jadavpur University.
Recipient of Young Scientist Awards in Chemical Sciences from INSA (2011), DAE (2010) and NASI (2009).
Awarded SERB Women Excellence Research Grant (2013).
Editorial board member, Optics and Photonics Journal.
Published 68 papers in peer-reviewed international journals and 3 book chapters.</td></tr>
<tr><td colspan="2">One line/phrase that inspires you the most in your life:
“Chance favours the prepared mind.”— Louis Pasteur</td></tr>
</table>

1. **Why did you choose STEM as a career?**
   I have always had an inquisitive mind and I enjoyed the step-by-step approach to problem-solving rather than memorization of information. Choosing a career in STEM was a natural culmination of my interests. It was the area where I believed I could make a maximum positive contribution.

2. **People who have inspired you the most in your life and why?**
   Marie Curie is one of the most inspirational women in science whose pioneering research, grit, dedication, and services to humanity continue to motivate me. I am also inspired by Hellen Keller, who never let her disability become an obstacle. Among the many other people who have touched and shaped my life personally are my grandmother, a strong lady who could never go to school but was one of the most well-read persons that I have known; the friend who battled poverty and prejudice to become an accomplished doctor; and the teacher who showed us that learning is fun.

3. **Major turning points/events in your life and/or the main challenges that you have faced and how you overcame the same?**
   Life has brought with it many challenges, struggles and some disappointments, as it does for everybody. But difficult situations have never been insurmountable for me because of the good education that I was privileged to receive. I think a trained and disciplined mind has helped me face the events in my life boldly and understand them from different perspectives. I strongly believe that investing in knowledge has given me the power to grow, overcome difficulties, and be liberated.

4. **In your opinion, what can be done to bridge the gender gap in STEM?**
   In my opinion, bridging the gender gap in STEM needs to begin at home. Awareness among parents, teachers, family members and policymakers is required to proactively instil self-confidence in women to take up STEM careers and provide the support needed for them to persevere and not give up.

5. **Your advice to young girls and /or women aspiring to make a career in STEM**.
   Believe in yourself, be bold, be brave and pursue your goals with single-minded devotion. There will be obstacles, but what is life without challenges!

<table>
<tr>
<td>  </td>
<td>Nishad Fathima Nishter
Senior Principal Scientist
Inorganic and Physical Chemistry Laboratory
CSIR-Central Leather Research Institute</td>
</tr>
<tr>
<td>Broad Research Area:
Chemical Sciences</td>
<td>Brief introduction about yourself
She holds a B Tech, M Tech and a Ph.D. degree in Leather Technology from Anna University. A gold medallist at both undergrad and postgrad levels and a leather technologist working on the fascinating structure of skin and collagen. She loves to inspire school and college students through popular lectures.</td>
</tr>
<tr>
<td>Research Expertise / Keywords:
supramolecular assemblies; protein crosslinking; leather science & technology</td>
<td>Research explanation in simple language
Developing value-added products from proteinaceous solid waste through the first principal understanding of protein assemblies. Self and controlled assemblies of proteins and crosslinking of proteins using nanotechnology, ionic liquids and small molecules have implications in biomedical as well as industrial applications.</td>
</tr>
<tr>
<td>Contact Information:
Official Email:
nishad@clri.res.in
Official Website:
Scopus ID: 6602306001
Google Scholar: N Nishad Fathima
Twitter:
@NishadFathima3
FB: Nishad.Fathima</td>
<td>Significant achievements
No. of Publications: 113
Patents: 5
Major awards/honors:
Tamilnadu Young Scientist Award -2017
INSA-DFG visiting scientist fellowship- 2017
SERB Woman Excellence award-2013
INAE Young Engineer Award-2012
IEI Young Engineers Award-2012-2013
INSA medal for the Young scientist in Eng. Sci.-2011
DAAD short-term fellowship for the year-2007
Major grants (DST/DBT/CSIR/INSA): 8</td>
</tr>
<tr>
<td colspan="2">One line/phrase that inspires you the most in your life:

Be the change you wish to see in this world- Mahatma Gandhi</td>
</tr>
</table>

1. **Why did you choose STEM as a career?**
   It is said we don't choose our destiny, our destiny chooses us. My entry into STEM was one too! Wanted to be a doctor and became one (Ph.D. doctorate!). Choosing Leather technology because of its proximity to home and it ended up as my passion and profession!

2. **People who have inspired you the most in your life and why?**
   One person who continues to inspire me always is Dr. T Ramasami, my teacher, mentor and supervisor. He thought me the introductory course to Leather technology in my B Tech, which made me get fascinated with leather. He also played an instrumental role in taking up science as a career. His vision and breadth of knowledge amaze me and I always want to emulate him. He gifted me a book for securing the highest marks in his subject with a note "I have higher expectations of you" and I truly want to live up to his expectations.

3. **Major turning points/events in your life and/or the main challenges that you have faced and how you overcame the same?**
   Having a child is a major event for any woman not only at the personal level but also professionally. It definitely holds you back as priorities change. However, the right attitude and support from family take you through this crucial phase of your life. I have had my share of sacrifices made nevertheless they were worth it.
   Being treated a little differently as a woman can hurt at times, but that should turn into your strength and push you harder to prove yourself! I have always turned my challenges into opportunities!

4. **In your opinion, what can be done to bridge the gender gap in STEM?**
   - Make aware of various women-centric schemes to those who took a break due to marriage or childbirth.
   - Have more role models speaking about their success stories to school/college girls to encourage them to take up science.
   - Educate society to overcome inherent prejudices against women to arrest the leaky pipe.

5. **Your advice to young girls and /or women aspiring to make a career in STEM**.
   Failure in experiments is something that happens always to a researcher, yet we always succeed through repeated efforts. Same with hurdles that life throws at us. Keep pushing yourself and you will succeed.

<table>
<tr><td>  </td><td>Mudrika Khandelwal
Associate Professor
Department of Materials Science and Metallurgical Engineering
IIT Hyderabad</td></tr>
<tr><td>Broad Research Area:
Chemical Sciences</td><td>Brief introduction about yourself
Dr. Mudrika Khandelwal is currently an associate professor in the Department of Materials Science and Metallurgical Engineering at IIT Hyderabad. Earlier she has done her bachelor's and master's of technology from IIT Bombay and a Doctorate at the University of Cambridge, UK.</td></tr>
<tr><td>Research Expertise / Keywords:
Nanofibres, Cellulose</td><td>Research explanation in simple language
She uses cellulose fibres produced by bacteria by a process similar to making curd or wine (fermentation). These fibres are nanodimensional and highly crystalline forming a highly porous structure offering several advantages. She modulates their properties to suit applications in energy healthcare and the environment.</td></tr>
<tr><td>Contact Information:
Official Email:
mudrika@msme.iith.ac.in
Official Website:
https://iith.ac.in/~mudrika/
Google Scholar,</td><td>Significant achievements
INAE Young Engineer Award Indian National Academy of Engineers 2020
NASI-Young Scientist Platinum Jubilee Award National Academy of Sciences India 2020
Gandhian Young Technological Innovation Award SRISTI (Society for Research and Initiatives for Sustainable Technologies and Institutions) 2016</td></tr>
<tr><td colspan="2">One line/phrase that inspires you the most in your life:
The show must go on</td></tr>
</table>

1. **Why did you choose STEM as a career?**
   My parents are doctors and have closely seen how science can improve lives.

2. **People who have inspired you the most in your life and why?**
   My parents

3. **Major turning points/events in your life and/or the main challenges that you have faced and how you overcame the same?**
   NIL

4. **In your opinion, what can be done to bridge the gender gap in STEM?**
   I think privileges such as maternity leave should be applied to fathers also so that they can support themselves better. Second, a woman should not be pitied. One must respect the strengths each individual has and not typecast the weaknesses as well.

5. **Your advice to young girls and /or women aspiring to make a career in STEM**.
   Involve your parents/other influencers in your thought process so that they can appreciate your choice of career. Share experience and knowledge with them. Also, personal and professional life must go in parallel.

<table>
<tr><td>  </td><td>Sriparna Chatterjee
Materials Chemistry Department
CSIR-Institute of Minerals and Materials Technology
Bhubaneswar-751013
Odisha, India</td></tr>
<tr><td>Broad Research Area:
Chemical Sciences</td><td>Brief introduction about yourself
Dr. Sriparna Chatterjee has been working in CSIR-Institute of Minerals and Materials Technology since 2013 in the field of Materials Chemistry. She pursued her Ph.D. work at the Tata Institute of Fundamental Research, Mumbai. Her research interest is focussed on the design of multifunctional coating, tunable wettability, photo-catalysis, electron emission, etc.</td></tr>
<tr><td>Research Expertise / Keywords:
Nanostructure; Wetting; Coating; Surface; Environment</td><td>Research explanation in simple language
Dr. Chatterjee's research aims to understand the basic principles of nanostructured surfaces' chemistry and physics and design multifunctional, adaptive materials. The goal is to develop advanced nanostructured materials with broad implications in fields ranging from smart architecture to energy efficiency to a clean environment.</td></tr>
<tr><td>Contact Information:
Official Email: sriparna@immt.res.in/sriparna251@gmail.com
Official Website
Google Scholar
Twitter
FB</td><td>Significant achievements
47 research publications in SCI journals, 01 patent, 01 Book chapters, 01 Ph.D. student and more than 20 project student supervised, 15 National awards (viz. IIM Bhubaneswar chapter award-2021, Er. Sankarsan Jena Memorial Award-2017, Ganesh Mishra Memorial Award-2015, INSPIRE Faculty Award - 2012, 03 grant-in-aid projects (as PI) funded by DST, SERB, CSIR, 01 technology transfer to MSMEs, 23 invited/contributory talks conferences/seminars/webinars, 03 short-term courses delivered, 04 popular science writing, 34 conference contribution.</td></tr>
<tr><td colspan="2">One line/phrase that inspires you the most in your life:
Be the Change that you wish to see in the world.</td></tr>
</table>

1. **Why did you choose STEM as a career?**
   Science plays a pivotal role in shaping the sustainable society and prosperous economy of any country. Science professionals can act as role models for such causes by solving problems and creating new knowledge. Scientific knowledge gives the strength to think openly, practice, pursue and apply knowledge towards the betterment of society.

2. **People who have inspired you the most in your life and why?**
   It is not easy to name one person. Each person or incident that I come across leaves some impression or message, and those are the source of inspiration to me.

3. **Major turning points/events in your life and/or the main challenges that you have faced and how you overcame the same?**
   DST-INSPIRE Faculty award has provided me the chance of establishing myself as an independent young researcher. It is when I started formulating my problem of interest and worked on them in my way. It boosted my confidence that I can pursue STEM as my career.
   Every challenge of my life has provided me with perseverance, gumption and great opportunities for growth. To me, facing challenges is extremely important as challenges unveil my potential that even I might not be aware of before. Therefore, I like to embrace the challenges of life and do not wish to mark any of them as a major one in my life.

4. **In your opinion, what can be done to bridge the gender gap in STEM?**
   The gender gap bridging in STEM is a matter of concern, and it may be done by breaking the stereotype ideas among students (starting from the school level) concerning responsibility sharing, choice of game or toys, choice of subjects of study, even choice of fashion by a coherent effort of teachers, family members, supervisors, colleagues, and friends.

5. **Your advice to young girls and /or women aspiring to make a career in STEM**.
   Motivate yourself and do not wait ever to be motivated. You need to pay back to society and you should do this SCIENTIFICALLY!

<table>
<tr><td>  </td><td>Nishima Wangoo
Assistant Professor
Department of Applied Sciences,
University Institute of Engineering & Technology (UIET)
Panjab University, Chandigarh</td></tr>
<tr><td>Broad Research Area:
Chemical Sciences</td><td>Brief introduction about yourself
Nishima is working at Applied Sciences, UIET at Panjab University, Chandigarh. She worked at the Centre for Nanoscience and Nanotechnology as an INSPIRE Faculty after her postdoc from NTU, Singapore. She did Ph.D. (Nanoscience) from CSIR-IMTECH, Chandigarh (NTU, Singapore and Northwestern University, USA). She likes music and poetry in addition to research and teaching.</td></tr>
<tr><td>Research Expertise / Keywords:
Nanobiotechnology, Drug delivery, antimicrobial agents, self-assembly, biosensing</td><td>Research explanation in simple language
She is involved in the development of nanomaterials that can be used in various applications such as biosensing, drug delivery, etc. Her lab is also dedicated to the design of self-assembled nanostructures of amino acids and peptides. She has successfully executed over ten research projects from various agencies and published them in high-impact journals.</td></tr>
<tr><td>Contact Information:
Official Email:
nishima@pu.ac.in
official website
Scopus ID:
23092476400,
Google Scholar,
Twitter (N.A.)
FB: Nishima Wangoo</td><td>Significant achievements
No. of publications: 55, h-index: 24, Citations: 2107, Books: 2, Book Chapters: 2, Patents: 2
Total number of projects handled: 10 (SERB, DBT, CSIR, UGC, DST)
2021-First woman from Panjab Univ to be selected in INYAS, 2019-Smt Prem Lata Jain Best researcher award, 2018-Best researcher award (DST-PURSE), 2017-Best Publication Award (Prof Jain foundation), 2013: Prof U C Pant memorial award by Indian Chemical Society, 2012: INSPIRE Faculty award</td></tr>
<tr><td colspan="2">One line/phrase that inspires you the most in your life:
When the going gets tough, the tough gets going!</td></tr>
</table>

1. **Why did you choose STEM as a career?**
   Science used to attract me ever since I was a child. My family had many people working in STEM, so discussions around science were common. I was lucky enough to have very inspiring teachers in school and university who encouraged me to pursue my career in science.

2. **People who have inspired you the most in your life and why?**
   The first person who inspired me was my father. Being the father of two daughters was never a deterrent in his decision of giving us the best education, even if it meant working hard. My mother was another great contributor who accepted a job in another city just to ensure that her girls went to the best school, even when that meant meeting us only thrice in a year. Another person who inspired me tremendously was Late Prof D.V.S. Jain, who always used to tell us that "just keep working hard and be focussed and do not bother about what others say about you."

3. **Major turning points/events in your life and/or the main challenges that you have faced and how you overcame the same?**
   The turning point of my life was when I was selected for INSPIRE faculty position. The next was when I joined an engineering institute as a permanent faculty in science, where I was told that it will be a dead-end of my research, but I proved it wrong. I worked hard in research and teaching, along with handling my family and two young kids. The transition was full of challenges every minute, but I am glad I made it. I successfully built my lab from the scratch (without any help!) from my research grants and pursued my passion for research.

4. **In your opinion, what can be done to bridge the gender gap in STEM?**
   a) Let the girls go for their dream careers
   b) Sensitise both men and women to take STEM as a gender-neutral field.
   c) Age relaxation for women candidates should be seriously taken

5. **Your advice to young girls and /or women aspiring to make a career in STEM**.
   Nothing comes easy, but nothing is impossible. Be prepared for all the struggles, but at the same time, believe in yourself.

<table>
<tr><td>  </td><td>Ritu Gupta
Associate Professor
Department of Chemistry
Indian Institute of Technology Jodhpur</td></tr>
<tr><td>Broad Research Area:
Chemical Sciences</td><td>Brief introduction about yourself
Ritu Gupta is an Associate Professor at the Department of Chemistry, IIT Jodhpur. She graduated in Chemistry from Miranda House in 2007. She obtained her Master's and Ph.D. in Materials Science from JNCASR, Bangalore, and postdoctoral research at Purdue University, USA. In 2015, she joined the Department of Chemistry, IIT Jodhpur as one of the youngest faculty.</td></tr>
<tr><td>Research Expertise / Keywords:</td><td>Research explanation in simple language
Her present research is focussed on the development of functional nanomaterials for electrochemical energy devices and chemical sensors, using printable nanomaterials and solution-processed molecular inks. She is working towards extending the application of nanomaterials and flexible devices to healthcare and environmental monitoring.</td></tr>
<tr><td>Contact Information:
Official Email: ritu@iitj.ac.in
Official Website:http://home.iitj.ac.in/~ritu
Google Scholar,</td><td>Significant achievements
She has published more than 60 articles in reputed SCI-indexed International Journals and granted 4 patents. She has received IIT Jodhpur Young Researcher Award-2021 and Women Excellence Award-2021 from SERB, India. She has also received national recognition from all three National Science Academies in India as INSA Young Scientist Medal 2020, NASI-Platinum Jubilee Award 2021 and IAS Associateship 2021. She is a member of INYAS since 2021.</td></tr>
<tr><td colspan="2">One line/phrase that inspires you the most in your life:
Believe in yourself</td></tr>
</table>

1. **Why did you choose STEM as a career?**
   I chose STEM as a career to bring a change in the way we live our lives. This career gives opportunity to work on developing solutions for real-life problems related to energy, environment, water and health.

2. **People who have inspired you the most in your life and why?**
   Various people inspired me at various stages of life. My parents and siblings constantly motivated and supported me at all stages of life. One of my senior and best friend inspired me the most to take up science as a career. As a young undergraduate student, I was really amazed to see his passion for chemistry. Later as a Ph.D. student, my supervisor was my greatest inspiration for learning creative ways for pursuing science towards solving technological problems.

3. **Major turning points/events in your life and/or the main challenges that you have faced and how you overcame the same?**
   Several situations in life were challenging related to personal life and health. However, staying focussed and determined towards your goal is important for overcoming all the problems.

4. **In your opinion, what can be done to bridge the gender gap in STEM?**
   The gender gap in STEM can be bridged by sensitizing people, improving policies, practices and monitoring its proper implementation in organizations to promote gender equality.

5. **Your advice to young girls and /or women aspiring to make a career in STEM**.
   Tomorrow's hopes, wishes and dreams may never die for as long as you believe in yourself and follow your heart with kindness.

<table>
<tr><td>  </td><td>Shamin Chandrashekhar Padalkar
Assistant Professor
Centre for Excellence in Teacher Education
Tata Institute of Fundamental Research, Mumbai</td></tr>
<tr><td>Broad Research Area:
Science Education</td><td>Brief introduction about yourself
After the Master’s degree in Physics, Shamin Padalkar joined the Homi Bhabha Centre for Science Education (TIFR) for her doctoral work in science education. Shamin’s research area is ‘visuospatial thinking in science education’. She is also involved in the education and professional development of science teachers.</td></tr>
<tr><td>Research Expertise / Keywords:
Astronomy Education, Visuospatial thinking, Representational competence, Communicating nature of science</td><td>Research explanation in simple language
Research in science education involves investigating how students learn science, what are alternative conceptions, notions they might develop and how to help them to change their alternative notions. Shamin’s work is on nurturing visuospatial thinking among students to help them construct mental models and reason, using them to explain natural phenomena.</td></tr>
<tr><td>Contact Information:
Official Email:
shamin.padalkar@tiss.edu
Official Website
Google Scholar</td><td>Significant achievements
Shamin has published 5 journal articles and 11 conference papers. She is a recipient of ‘B. M. Udgaonkar Best Thesis Award in Science Education’ by TIFR Alumni Association. She was a member of the Science Textbook Committee of the Maharashtra State Bureau of Textbook Production and Curriculum Research (Balbharati) and holds a long-term honorary visiting faculty position at IUCAA, Pune.</td></tr>
<tr><td colspan="2">One line/phrase that inspires you the most in your life
“□□□□□ □□ □□□ □□□□□□ □□ □□□□□□□ □□ □□ □□□□□

□□□□ □□ □□□□□□□ □□□□□□ □□□□ □□□□□□□□□□□□□, □□□ □□ □□□□□□□□ '□□' □□, □□ □□□ □□□□□□ □□□□, □□□□□□□ □□□ □□ □□ □□□□□□□ □□□□□□□□ □□□□□”- □□. □□. □□□□□□□</td></tr>
</table>

1. **Why did you choose STEM as a career?**
   As a college student, I had participated in activities of Bharat Gyan Vigyan Samiti. It made me aware of the importance of science education in nurturing a rational and healthy society. I also realized that I can engagingly teach science. So I chose a career in science education.

2. **People who have inspired you the most in your life and why?**
   I am in awe of Rabindranath Tagore's sensibility and creativity. His experiments in education are groundbreaking yet grounded in Indian culture; his poetry is modern yet classical; his music simple yet able to convey complex emotions! His productivity was beyond measure!
   Another person who inspires me is Dr. Narendra Dabholkar. He devoted his life to awakening common people and making them free from age-old superstitions. His responses and actions were always rational. He had a unique combination of intellect, selflessness, unflappability and fearlessness.
   I feel fortunate that I am born in the same era as these men and can see glimpses of their work. If I could just be a mirror to shine their light back, my life would be worthwhile.

3. **Major turning points/events in your life and/or the main challenges that you have faced and how you overcame the same?**
   When I was in Grade 4, Professor Jayant Narlikar was a chief guest of the annual gathering of my school. Consequently, I started reading his science fiction, developed a hobby of stargazing and pursued physics for my higher study. Another important turning point was to see the announcement of the doctoral program in science education at the Homi Bhabha Center for Science Education (TIFR) on the notice board of the Physics department of Pune University and getting admitted there with a fellowship. Graduate courses on cognitive science and epistemology deeply influenced me and I enjoy exploring these areas to date.

4. **In your opinion, what can be done to bridge the gender gap in STEM?**
   a. School science syllabus should include examples from various fields such as agriculture, food processing, child care in which girls/women engage. Through this, all students must understand that science is not limited to what they learn in textbooks but it is a way of life.
   b. Adolescent girls and women should be encouraged to document the experiences through which they get insights into science.

5. **Your advice to young girls and /or women aspiring to make a career in STEM**.
   Do not give up! Take smaller steps but do not stop. Do not hesitate to ask questions or to communicate your difficulty. Feel free to explore your life.

ENGINEERING SCIENCES

<table>
<tr>
<td>  </td>
<td>Chirasree Roy Chaudhuri
Associate Professor
Department of Electronics and Telecommunication Engineering
Sensors Laboratory
Indian Institute of Engineering Science and Technology (IIEST) Shibpur
(Formerly Bengal Engineering and Science University Shibpur, BESU)
Howrah -711103
West Bengal</td>
</tr>
<tr>
<td>Broad Research Area: Engineering Sciences</td>
<td>Brief introduction about yourself
Her schooling is from Auxilium Convent, Kolkata and she has passed higher secondary from Lady Brabourne College as a college topper. She pursued B.Tech, M.Tech and Ph.D. in Electronics from Jadavpur University. In her Ph.D. final year, she joined BESU as the first woman faculty in the Electronics Department.</td>
</tr>
<tr>
<td>Research Expertise /
Keywords:
Electrical biosensors with affordable technology and integrated with readout, wireless sensing systems for societal and rural applications</td>
<td>Research explanation in simple language
After her Ph.D., she decided to utilize the know-how developed towards societal application-based research. To fulfil this objective, she works towards the development of biosensors for early disease diagnosis, utilising affordable and sensitive electrical mechanisms. Developing wireless sensing systems for non-invasive monitoring of lone elderly citizens is another research interest.</td>
</tr>
<tr>
<td>Contact Information:
Official Email: chirashree@telecom.iiests.ac.in
Official Website
Scopus ID: 26531693400
Google Scholar
FB</td>
<td>Significant achievements
Published around 70 papers in peer-reviewed international journals. Received the young scientist and young engineer award from the national academies of science and engineering, respectively, and DST SERB women excellence award. She has one granted Indian patent and two published patents and has received grants worth Rs 2 crores approximately from various funding agencies. She serves as track chair of different IEEE and international conferences on sensors and is an Associate Editor of IEEE Sensors Journal and RC member of CSIR CSIO, Chandigarh.</td>
</tr>
<tr>
<td colspan="2">One line/phrase that inspires you the most in your life:
Simplicity is the ultimate sophistication</td>
</tr>
</table>

1. **Why did you choose STEM as a career?**

   Right from my school days, I was fascinated by the hands-on experiments in science. Further, while pursuing science as a specialisation during the higher secondary course, we were inspired to develop models of our own, demonstrating the scientific phenomena, which ignited my interest in pursuing STEM as a career.

2. **People who have inspired you the most in your life and why?**

   Being brought up in an orthodox joint family of Kolkata, I was awestruck by the struggles my parents had to undergo to facilitate me to pursue my dream career. Their determination and courage have always been inspirational. I have been motivated by the teachers in my high school and undergraduate course for developing the basic scientific reasoning skills and introducing me to the world of experiment design. Finally, I am ever grateful to my Ph.D. supervisor, Prof. Hiranmay Saha, who has taught me to think out of the box and finally realize the idea with the simplest resources available.

3. **Major turning points/events in your life and/or the main challenges that you have faced and how you overcame the same?**

   One of the major turning points in my life was unable to pursue a master's at IISc Bangalore (inspired by securing a high rank in GATE) due to family issues. Thus, I had to steer the domain of my research, which could be executed only with limited experimental resources at Jadavpur University in the field of microelectronics. In the final year of my Ph.D., I secured a job as a lecturer at BESU and got married. It was indeed challenging to strike a balance between family, Ph.D. and job. It could be managed only by working for long hours.

4. **In your opinion, what can be done to bridge the gender gap in STEM?**

   True solutions to the gender gap in STEM fields have to work on multiple levels. From a tender age, parents should take care to remind their girl child that they can grow up to do anything. Professionally, employers should allow women faculties/researchers to work from home when required.

5. **Your advice to young girls and /or women aspiring to make a career in STEM**.

   "Success is not final, failure is not fatal: it is the courage to continue that count".

<table>
<tr>
<td>  </td>
<td>Pooja Devi
Principal Scientist
Materials Science and Sensor Application
Central Scientific Instruments Organisation, Chandigarh, India</td>
</tr>
<tr>
<td>Broad Research Area:
Engineering Sciences</td>
<td>Brief introduction about yourself:
She is working as Principal Scientist at CSIR-Central Scientific Instruments Organisation. She has done her Ph.D. from the Academy of Scientific and Industrial Research, New Delhi and MTech. in Nanotechnology from IIT, Roorkee. She is a passionate science communicator and is engaged in various science outreach activities under CSIR-JIGYASA, VIGYAN JYOTI, INYAS programmes for motivating school and college students, including girls for science.</td>
</tr>
<tr>
<td>Research Expertise /
Keywords: Materials Engineering, Chemical Sensors, Catalysis, Hydrogen Generation, Waste water, Air Purification</td>
<td>Research explanation in simple language
Her work is aligned to UN sustainable development goals, i.e., clean water, climate action, affordable and clean energy. She engineers materials and translates them into products for water quality testing, hydrogen production from wastewater, and indoor air purification.</td>
</tr>
<tr>
<td>Contact Information:
Official Email: poojaiitr@csio.res.in
Official Website:
Scopus ID: 56478442300
Google Scholar:
Twitter: @Pooja43455048
FB: (Pooja Sharma)</td>
<td>Significant achievements
Research Publications: 88, Patents/ Trademark/Copyright: 07, Edited Books/Chapters: 07, Book Chapters: 20, ToT Transferred/Ready for Transfer: 06, Invited/Oral Talks : 67, Papers at conferences : >75, Ph.D. Thesis Supervision: 06 (01 awarded + 05 ongoing), R&D Projects as Principal Investigator (PI/Co-PI): 12, Science Outreach Projects: 06
Awards/Recognition:
• NASI- Young Scientist Platinum Jubilee Award (2021)
• IEI Young Engineer Award (2020-21)
• Haryana Yuva Vigyan Ratan Award (2019)</td>
</tr>
<tr>
<td colspan="2">One line/phrase that inspires you the most in your life
Don't regret anything in life. If it's good, it's wonderful. If it's bad, it's an experience! When you win, you win. When you lose, you learn.</td>
</tr>
</table>

1. **Why did you choose STEM as a career?**
   The first reason to choose STEM was my parents, who like any other middle-class family, wanted their kids to become engineers and doctors. As I grew up and started taking cognizance of the surroundings, I found the STEM field satisfying. Especially, as a scientist, every day is fun and full of new things to explore. It's like becoming a curious kid again.

2. **People who have inspired you the most in your life and why?**
   I have been inspired most by my father. He is my torchbearer and the reason to enter the field of education. He couldn't study beyond secondary education due to family financial issues. Despite that, he had a vision for me and my siblings and has treated us equally without any gender bias. His thoughts have inspired me to excel in my journey, do something meaningful in life, and give back to my community and society. I am also inspired by many women researchers.

3. **Major turning points/events in your life and/or the main challenges that you have faced and how you overcame the same?**
   My education until 10th grade was in Hindi medium. When I took admission in +1, the English language became a barrier to learning Science. I had to understand language and scientific concepts in parallel. To overcome this, I worked very hard. I used to take an English dictionary while reading chemistry, physics and mathematics. It turned my career, and I still feel that it was the hardest amongst all challenges I faced. The second challenge was managing the work-life balance, especially raising two babies together, i.e., my first child and my research lab/career at 25 years of age. To overcome this, I took the maximum support I could take from the family especially my husband, parents and house helpers.

4. **In your opinion, what can be done to bridge the gender gap in STEM?**
   My thought is to bridge the gender gap in STEM by providing extensive structural support to young women who are in the transition of building their families as well as careers. The support could be provided in terms of (a) enabling flexible working hours for young parents, (b) enabling father's participation in child-raising through sharing child care leave and enforcing paternity leave, (c) support for creche in the campus, (d) enabling/prioritising recruitment of working couples in STEM in a state/city S&T cluster to tackle the two-body problem, (e) increase in number of fellowships for bringing women having a career break back in main stream.

5. **Your advice to young girls and /or women aspiring to make a career in STEM**.
   Be strong, follow your dreams and voice for yourself for the benefit of yourself as well as the diversity in STEM. It is okay not to be a superwoman. Don't get disheartened by any delay in the academic ladder. Try to take help wherever needed in managing work-life balance and be resilient.

<table>
<tr>
<td>  </td>
<td>Neha Sardana
Assistant Professor
Department of Metallurgical and Materials Engineering
Indian Institute of Technology Ropar
Rupnagar, Punjab</td>
</tr>
<tr>
<td>Broad Research Area:
Engineering Sciences</td>
<td>Brief introduction about yourself
Neha Sardana is a B.Tech from IIT Roorkee and MS from the Technical University of Denmark. She is a Ph.D. from IMPRS-MLU, Germany. She has served as a Scientist at the Institute of Nano Science & Technology and as an Assistant Professor at IIT Jodhpur. She loves to travel and read.</td>
</tr>
<tr>
<td>Research Expertise / Keywords:
Materials Engineering, Plasmonics, Nanotechnology, DFT</td>
<td>Research explanation in simple language
As materials structure (atomic / bulk), size (nm, micron or bulk) and properties are highly dependent on each other, she works on tuning the size and structure of materials to get novel substances with a better optical and mechanical response for high temperature and sensing applications.</td>
</tr>
<tr>
<td>Contact Information:
Official Email: nsardana@iitrpr.ac.in
Official Website
Scopus ID: 55312870500,
Google Scholar
FB</td>
<td>Significant achievements
She has more than 30 publications in peer-reviewed journals and conference proceedings. She has filed 6 patents and has been granted more than 3 Cr. of funding from various funding agencies, including the ECR fund by SERB.
Her most notable honours are selected as ECR UK-India Interdisciplinary Workshop on ABB-2018, Newton Fund, British Council. Best Poster Prize ICLA'15, sponsored by Material Research Society of Singapore. Federal Ministry of Education and Research (BMBF), Doctoral Fellowship, 2011-2014. Being a Copenhagen Youth Goodwill Ambassador, Denmark in 2010 and an exchange student to KTH Sweden - IIT Roorkee, Spring 2008.</td>
</tr>
<tr>
<td colspan="2">One line/phrase that inspires you the most in your life:
You can't connect the dots looking forward; you can only connect them looking backward. So you have to trust that the dots will somehow connect in your future.</td>
</tr>
</table>

1. **Why did you choose STEM as a career?**

   Since childhood, I wanted to be a doctor, but eventually, I became fearful of bio-lab, but more interested in physics and mathematics. So clearing IIT-JEE spurred a series of interests in materials, manufacturing, nanotechnology, plasmonics, etc., leading to a doctorate. Each topic enticed me and made me stick to STEM while becoming a doctor (Dr. rer. nat.).

2. **People who have inspired you the most in your life and why?**

   Inspiration has come as many faces throughout my life. The early days of motivation came from my father. I remember one exhilarating event when I was 5 yrs old and he was trying to demonstrate magnetism by making an electromagnet. There was a short circuit, but the magnet was made. Simultaneously, somewhere the love for science was instilled. It continued at each swimming lesson of buoyancy and tennis lesson of projectiles; everything around me was and is science. Inspiration came as an occasional bawl out from my mother, who persuaded me to be independent in all aspects of life. It came as encouragement by my mathematics teachers at school and my metallurgy Professor Late Smt. Vijaya Aggarwala. Inspiration still comes daily from my inquisitive students, competitive peers and of course surreal nature.

3. **Major turning points/events in your life and/or the main challenges that you have faced and how you overcame the same?**

   I always wanted to return to India after my studies. So when I started applying for jobs after a B.Tech. and MS in Engineering followed by a Ph.D. degree in Physics, I was not shortlisted in any engineering colleges or universities/IISERs due to my Ph.D. in science and B.Tech. degree, respectively, as I did not fall in the single degree line Science or Engineering. It was the strong alumni affiliations, flexibility of the IIT system and interdisciplinary institutes that helped me grab a job. Now the scenario is much better, and interdisciplinary people are sometimes preferred even more.

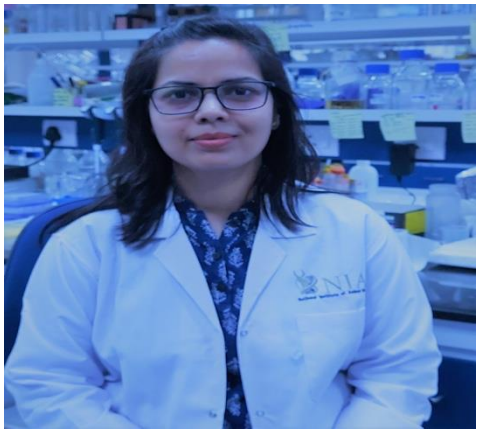
4. **In your opinion, what can be done to bridge the gender gap in STEM?**

   As India's paradigm has shifted to nuclear families and working grandparents, so for the first 3-5 years after childbirth, a woman/man should be given an option for flexible working hours or conversion of a full-time job to a part-time job or work from home options, making it more inclusive for new parents. Preference/options for the temporary working of young parents in one area/ academic institution.

5. **Your advice to young girls and /or women aspiring to make a career in STEM**.

   There are no wrong questions, only not asking them is!

   Be brave, stand tall, speak up, and when you want something, all the universe conspires in helping you to achieve it.

<table>
<tr><td>  </td><td>Sonu Gandhi
Scientist D
National Institute of Animal Biotechnology (NIAB)
Hyderabad-500 032, Telangana, India</td></tr>
<tr><td>Broad Research Area:
Engineering Sciences</td><td>Brief introduction about yourself
She is a passionate researcher, working on the interface of biology and chemistry to fill the gaps by inculcating the tools to address disease diagnosis and therapeutic interventions.</td></tr>
<tr><td>Research Expertise / Keywords:
Diagnostics, Biosensors, Nanotechnology, Cancer Biomarkers</td><td>Research explanation in simple language
Her lab works on the development of diagnostic platforms and therapeutics approaches. For this, she fabricates various nanomaterials that can be utilised for detecting various biomarkers, antigens, antibodies, aptamers, peptides. Her lab develops lateral flow assay, electrochemical sensors, field-effect transistors, microfluidic devices etc.</td></tr>
<tr><td>Contact Information:
Official Email: gandhi@niab.org.in
Official Website
Google Scholar
Twitter- @GandhiSonu2
FB- sonugandhi</td><td>Significant achievements
No. of Publications- 54
Patents- 8
Major awards- 06
Honors- 08
Grants- 02 (completed as PI), 04 (ongoing as PI)</td></tr>
<tr><td colspan="2">One line/phrase that inspires you the most in your life:

You have to dream before your dream can come true</td></tr>
</table>

1. **Why did you choose STEM as a career?**
   Choosing STEM as a career was a dream come true as I always wanted to be in academia. I have been very fascinated since my childhood in biology and chemistry and wished to choose STEM as a career in the long run.

2. **People who have inspired you the most in your life and why?**
   Dr. APJ Kalam inspired me the most due to his extraordinary vision of Science. Dr. Kalam is an inspiration to many in this world, who want to achieve and fulfil their dreams. I read many of his books that are visionary for each one of us, such as "Inspiring Thoughts, 2007; You Are Born To Blossom: Take My Journey Beyond, 2011; Turning Points: A journey through challenges 2012; My Journey: Transforming Dreams into Actions 2014; Reignited: Scientific Pathways to a Brighter Future 2015" and provides knowledge on how to achieve your dreams. When one wants to achieve their dreams, a person faces various challenges.

3. **Major turning points/events in your life and/or the main challenges that you have faced and how you overcame the same?**
   The major turning point in my life was when I decided to enter academia and started a Ph.D., Post Doc, and later joined as a visiting scientist. The journey was very smooth until then with all the support from family and staff. The decision to return to India initially looked great, but the workload and managing family alone pose many challenges together. Moreover, if you are highly ambitious then life is very difficult as we face various challenges at each step. However, with the strong willpower, determination, and support of family or colleagues one can overcome the challenges in life.

4. **In your opinion, what can be done to bridge the gender gap in STEM?**
   It is very difficult to bridge the gender gap in STEM. But time is changing and I trust it will happen one day. First and foremost, we should include an equal number of female faculties in all the committees, interview panels, institutional committees etc. The award grant also needs to be rationalised as per gender. Age liberty should be provided in the case of females as we as women are engaged in many other responsibilities.

5. **Your advice to young girls and /or women aspiring to make a career in STEM**.
   I would suggest that you define your goals in life and achieve them.

<table>
<tr><td>  </td><td>Rishemjit Kaur
Position: Principal Scientist
Department/Institute: CSIR-Central Scientific Instruments Organisation, Sector-30C, Chandigarh</td></tr>
<tr><td>Broad Research Area:
Engineering Sciences</td><td>Brief introduction about yourself
She is a Principal Scientist at CSIR-Central Scientific Instruments Organisation. She is interested in developing artificial intelligence algorithms for the social good.</td></tr>
<tr><td>Research Expertise / Keywords:
Artificial intelligence, natural language processing, social computing, food and agriculture analytics</td><td>Research explanation in simple language
Her research focus has been modelling and prediction of collective behaviours using machine learning, natural language processing and big data analytics, leveraging it for solving engineering problems. She mostly works in the domain of agriculture, food and nutrition</td></tr>
<tr><td>Contact Information:
Official Email: Rishemjit.kaur@csio.res.in
Official Website
Google Scholar
Twitter
FB</td><td>Significant achievements
She has published more than 40 papers (including Science, PlosOne, IEEE cybernetics) with a total impact factor greater than 125, 1 patent, 1 technology transfer, developed 5 softwares and 4 technologies.
She represented India at BRICS Young Scientist platform, recipient of MEXT fellowship, CSIR QHS fellowship, fellowships from ICML-2020 and ICML-2021, GECCO virtual creatures award, SICSS-Oxford University and several travel fellowships to my credit.
She is a mentor at the Internship carnival organised by IIT Ropar iHub - Agriculture Water Technology Development Hub(AWaDH).</td></tr>
<tr><td colspan="2">One line/phrase that inspires you the most in your life:
Somewhere, something incredible is waiting to be known</td></tr>
</table>

1. **Why did you choose STEM as a career?**

I had an interest in science, and I am thankful that my parents encouraged me to pursue a career in this field. Also, a career in STEM offers a chance to work on challenging problems with direct societal implications, which I am interested in solving.

2. **People who have inspired you the most in your life and why?**

My first source of inspiration has been my family, who always believed in me and supported my education and career. Throughout my career, different people, my teachers, my supervisors and people from other walks of life have inspired me.

3. **Major turning points/events in your life and/or the main challenges that you have faced and how you overcame the same?**

There have been several major events in my life, such as joining as a scientist in a research lab, completing my Ph.D., or getting the Japanese Govt. fellowship. It has given me a wide perspective of the world. Along with the improvement of my technical skills, it has exposed me to a diverse set of people, their cultures, viewpoints and made me look at the world in a different light.

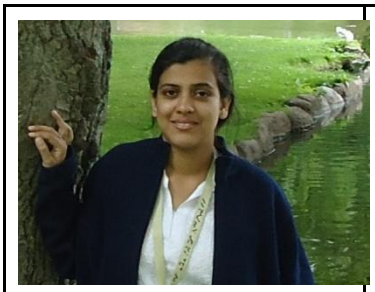
4. **In your opinion, what can be done to bridge the gender gap in STEM?**

Any change in society has to originate from family, especially in India, where family values are the foundation blocks of our society. It will involve primarily bridging the generational gap, which I believe can be solved by having female leaders in every walk of life.

5. **Your advice to young girls and /or women aspiring to make a career in STEM**.

Be confident and take charge of your life. Don't wait for others to make decisions for you.

PHYSICAL & MATHEMATICAL SCIENCES

<table>
<tr><td>  </td><td>Pragya Bhatt
Research Associate/INSPIRE Faculty
Atomic and Molecular Physics
Inter University Accelerator Centre, Aruna Asaf Ali Marg, New Delhi 110067</td></tr>
<tr><td>Broad Research Area:
Physical Sciences</td><td>Brief introduction about yourself
She is a simple person, enthusiastic about Physics related problems. She enjoys staying with her family after her scientific adventures in the laboratory.
She did her Ph.D. in Physics from BHU, Varanasi. At present, she works at IUAC, New Delhi.</td></tr>
<tr><td>Keywords: Experimental Atomic/Molecular Physics, Mass/Momentum Spectrometry, Charge particle interaction</td><td>Research explanation in simple language
She studies the basic building blocks of nature-atoms/molecules. In her lab, she tries to find out what happens to these entities and how they behave when they are subjected to various kinds of radiation (ions/electrons). Her research is relevant to similar interactions occurring in the environments like interstellar space, plasma etc.</td></tr>
<tr><td>Contact Information:
Official Email: pbpragya@gmail.com
Official Website:
Google Scholar,
(Pragya Bhatt)</td><td>Significant achievements
~50 publications in peer-reviewed international journals
DST INSPIRE Faculty Award,
D S Kothari Post-Doctoral Fellowship,
S N Ghosh Young Scientist Award by the Indian Society of Atomic and Molecular Physics</td></tr>
<tr><td colspan="2">One line/phrase that inspires you the most in your life:
koshish karne walon ki haar nahi hoti...</td></tr>
</table>

1. **Why did you choose STEM as a career?**

   The way Physics laws explain the things happening around us always made me excited since my school days. I believe that I also could do better in this field and contribute to the current knowledge base.

2. **People who have inspired you the most in your life and why?**

   My parents- I have seen them excelling in their respective fields of work and still being there whenever I needed them. I owe them for whatever I am today in my life.

3. **Major turning points/events in your life and/or the main challenges that you have faced and how you overcame the same?**

   Being an experimental Physicist demands a great amount of time and dedication. It appeared very difficult to balance between my scientific aspirations and my family life. I could overcome these challenges with the help of unconditional support from my family.

4. **In your opinion, what can be done to bridge the gender gap in STEM?**

   This can be done by focussing on the education of girls starting from the school level.

5. **Your advice to young girls and /or women aspiring to make a career in STEM**.

   Be optimistic and try to enjoy learning!

<table>
<tr><td>  </td><td>Mandyam Bhoolokam Rajani
Associate Professor
School of Humanities
National Institute of Advanced Studies, Bangalore</td></tr>
<tr><td>Broad Research Area:
Earth Sciences</td><td>Brief introduction about yourself
Rajani earned her Ph.D. from the University of Mysore in 2011, working in the field of space-based archaeological investigations.
She complements remote sensing studies with GPS survey and Geographic Information System (GIS) technologies.</td></tr>
<tr><td>Research Expertise / Keywords: Astronomy, Space and Earth Sciences</td><td>Research explanation in simple language
Her research has two inter-related facets: analysing cultural landscapes using geospatial data to identify new features of archaeological interest, and advancing the usage of such analysis towards preservation of built heritage in the face of rapid urbanization. Her primary scientific contribution has been to develop a methodology for detecting tell-tale signs of past human activities on landscapes from satellite imagery.</td></tr>
<tr><td>Contact Information:
Official Email: mbrajani@nias.res.in
Official Website, Scopus ID, Google Scholar</td><td>Significant achievements
Rajani received the Rachapudi Kamakshi Memorial Young Geospatial Scientist Award 2011. She is an elected member of the Indian National Young Academy of Science (INYAS) 2018-2022, Young Affiliate 2019-2023 of The World Academy of Sciences (TWAS) and recipient of P.R. Pisharoty Memorial award 2019 given by the Indian Society of Remote Sensing. She has >30 International peer-reviewed publications and has received a research grant from SERB, DST, MoES, ISRO and KKC.</td></tr>
<tr><td colspan="2">One line/phrase that inspires you the most in your life:
“Great things happen to those who don't stop believing, trying, learning, and being grateful.” ― Roy T. Bennett</td></tr>
</table>

1. **Why did you choose STEM as a career?**
   A career in science is full of excitement and thrill. It doesn't feel like a job; it is a vacation

2. **People who have inspired you the most in your life and why?**
   My grandmother Mrs. Sriranga, great grant mother Mrs. Vedavalli and my mother Mythili, are all strong-willed women and have influenced my personality. I was inspired to take up research as a career by my mentor Dr. John R Marr from Britain and science as a way of life by Dr. K.Kasturirangan.

3. **Major turning points/events in your life and/or the main challenges that you have faced and how you overcame the same?**
   I came from an art background and then shifted to science. Also, my field of research is multidisciplinary and involves applying science and technology to understand historical landscapes. Making the shift from art to science was a major turning point. Such shifts are generally considered almost impossible. I now recognize that such notions are taboo in society. My initial hesitancy in adopting science was rooted in a cultivated fear of science and technology. I was fortunate to have mentors to guide me past this mental hurdle.

4. **In your opinion, what can be done to bridge the gender gap in STEM?**
   Women should be given more support to not give up their research careers when there are overwhelming demands from family/society. There should be allowances made for career brakes and means of catching up speed after re-joining. Otherwise, with that kind of break and the subsequent slow speed, she can never reach leadership roles before she reaches retirement age. Alternatively, the service period for women can be increased by 5 years to make up for the time lost.

5. **Your advice to young girls and /or women aspiring to make a career in STEM**.
   If I can, then you can. Be strong and strive to achieve. Do not let anyone tell you you can't do what you aspire for. If they do, ignore, smile and carry on.

<table>
<tr><td>  </td><td>Sugandha Maheshwary
INSPIRE Faculty
Department of Mathematical Sciences
Indian Institute of Science Education and Research Mohali</td></tr>
<tr><td>Broad Research Area:
Mathematical Sciences</td><td>Brief introduction about yourself
Sugandha Maheshwary is a young mathematician working as INSPIRE Faculty at the Indian Institute of Science Education and Research Mohali. She loves her subject and aims to inculcate an appreciation for mathematics in students at all levels. Quite often, she is observed contributing to various outreach activities.</td></tr>
<tr><td>Research Expertise / Keywords: Algebra, representation theory, group rings.</td><td>Research explanation in simple language
Her research expertise is in group rings, which are algebraic structures with interesting properties. The study of group rings is closely related to representation theory, which is pervasive across fields of mathematics and science, with diverse applications. She works on several relevant problems in the subject and has contributed significantly by working on theoretical as well as computational aspects.</td></tr>
<tr><td>Contact Information:
Official Email:sugandha@iisermohali.ac.in
Official Website:
Twitter: @msugandha87
FB:</td><td>Significant achievements
She has been an excellent scholar, as reflected by the best-in-class scholarships received by her, including the prestigious CSIR-Shyama Prasad Mukherjee Fellowship, DST-NPDF and INSPIRE Faculty award. She has several publications in journals of high repute. The global recognition for her is apparent from several invitations she received from ace researchers in her field for invited talks in international conferences, collaborative work and other roles like being an expert for evaluating Ph.D. thesis. She was inducted as an INYAS member in 2019 and has been contributing to INYAS in various capacities: member, chapter coordinator and core-committee member.</td></tr>
<tr><td colspan="2">One line/phrase that inspires you the most in your life:

Contentment is detrimental to progress!</td></tr>
</table>

1. **Why did you choose STEM as a career?**

Love for mathematics and passion for teaching decided my path and brought me to where I am today.

2. **People who have inspired you the most in your life and why?**

I admire ideologies and not ideals. Any person excelling or striving for excellence has always naturally lured me. My grandfather, despite the generation gap, had been a hard-core supporter of my education. He prioritised my quality education over anything. I grew up hearing from him about successful women who came to the limelight, for instance, Kiran Bedi and Kalpana Chawla. But advancing in life, the biggest source of inspiration was found in women around me. My supervisor, my mother, my colleagues and other women in society inspired me more than anybody else. Everywhere around me, I see them juggling between so many roles and still bringing out the best. Women have various turning points in their life, and I feel grateful for having witnessed close connections with strong women, encouraging me at every stage. As of now, being a part of WINYAS-Women in INYAS, where I have like-minded female fellows in similar stages of life, is a great source of energy to keep me going.

3. **Major turning points/events in your life and/or the main challenges that you have faced and how you overcame the same?**

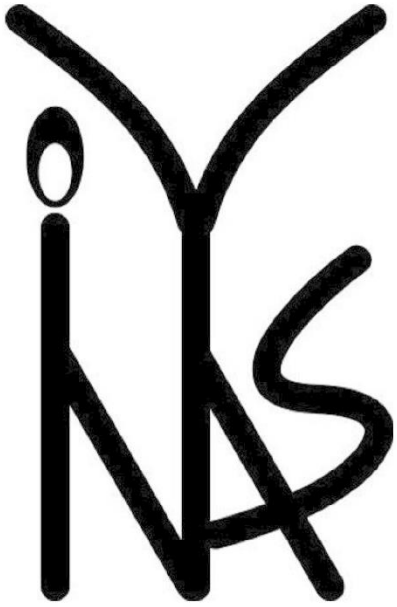
The obstacles, big or small, are faced at almost every stage. At times they are professional, and other times personal. Of course, both impact our work and life. I believe it is never always a smooth journey for anyone, and my case is no different. There is no particular instance that shared explicitly here will help. A positive attitude and constant effort-making habits are the greatest skills I developed, which benefitted me for every new obstacle or challenge I faced. Mathematics also teaches that every problem has a solution. We just need to be patient and consistent to find it.

4. **In your opinion, what can be done to bridge the gender gap in STEM?**

In my opinion, the only needed step to bridge the gap is to understand what leads to the existence of this gap. Science does not discriminate, and so is true for work. No reason holds back women from taking a career in STEM except for the inhibitions of minds that are deep-rooted. Reaching out to more people and portraying the inspiring journeys of women around them will definitely have a positive impact.

5. **Your advice to young girls and /or women aspiring to make a career in STEM**.

If you have an aptitude for science and you enjoy it, just step in. Do not be afraid of the roadblocks that will anyway come your way in life. The hurdles will only enhance your endurance and bring out the best in you. A career in STEM needs patience and consistent hard work but is quite satisfying.



Indian National Young Academy of Sciences

भारतीय राष्ट्रीय युवा विज्ञान अकादमी

This is a first attempt to compile the list of Women in INYAS (WINYAS) since inception (2015). This definitely is not a conclusive compendium, the journey will continue with more WINYAS members' addition. Any errors and omissions that may have crept in, may kindly be excused.

“Where the mind is without fear
and the head is held high”

Rabindranath Tagore

It is better to look back at life and say: 'I can't believe I did that' than to look back and say: 'I wish I did that’
“Believe you can and you’re halfway there.”

Theodore Roosevelt

"धैर्य दे अन् नम्रता देपाहा जे जे पहाणे"

वाकू दे बुद्धीस माइया त**प्त** पोलादा**प्र**माणे, जाऊ दे कार्प**ण्य** 'मी' चे, दे ध**रू**
सर्वास पोटी, भावनेला येऊ दे गा शा**स्त्र** काट्याची कसोटी

बा. सी. मर्ढेकर

“The woods are lovely, dark and deep, But I have promises to keep, And miles to go before I sleep”

Robert Frost